

County Council of Shropshire.

REPORT

BY THE

COUNTY MEDICAL OFFICER OF HEALTH

ON THE

**VITAL STATISTICS AND SANITARY CONDITION
OF SHROPSHIRE**

DURING THE YEAR 1903,

INCLUDING A

**SUMMARY OF THE ANNUAL REPORTS OF THE DISTRICT MEDICAL
OFFICERS OF HEALTH.**

SHREWSBURY,

JAMES WHEATLEY, M.D., D.P.H.

June 24th, 1904.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY
COMMITTEE OF THE SHROPSHIRE COUNTY
COUNCIL.

GENTLEMEN,

I have the honour to present my Annual Report for 1903.

The general arrangement of previous reports has been continued in the present one. The second part of the report is a condensed summary of the reports for the various districts. In the first part each subject is dealt with as affecting the whole County.

I am, Gentlemen,

Your obedient Servant,

JAMES WHEATLEY.

COUNTY HEALTH OFFICE,

Talbot Chambers,

June 24th, 1904.

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PART I.

THE ADMINISTRATIVE COUNTY.

POPULATION.

The population for the whole Administrative County was in 1891, 236,827, and in 1901, 239,783. In 1901 the total population of the urban and rural districts, containing a small part of Staffordshire, was 240,606, and it is estimated to be 241,294 in the middle of 1903. This is the population on which the county rates are calculated.

The populations on which the district rates are calculated are those estimated from local knowledge by the Medical Officers of Health. In some of the districts corrections of the population have been made on account of the public institutions.

TABLE I.
POPULATION, &c., IN URBAN AND RURAL DISTRICTS.

URBAN DISTRICTS.	Inhabited houses.			Population.				Percentage, Increase or Decrease between 1891 & 1901.
	1891	1901	Average No. of persons to each house.	1891	1901			
					Males.	Females.	Total.	
Bishop's Castle ...	361	354	3·9	1586	666	712	1378	— 13·1
Bridgnorth ...	1215	1300	4·6	5865	2791	3261	6052	+ 3·2
Church Stretton ...	131	147	5·5	770	399	417	816	+ 5·9
Dawley ...	1523	1633	4·6	6996	3940	3582	7522	+ 7·5
Ellesmere ...	392	425	4·5	1830	868	1077	1945	+ 6·2
Ludlow ...	959	1372	4·6	4460	3065	3308	6373	+ 2·0
Newport ..	714	720	4·5	3403	1518	1723	3241	— 4·7
Oakengates ...	2117	2187	4·9	10680	5739	5167	10906	+ 2·0
Oswestry ...	1778	2083	4·6	8496	4507	5072	9579	+ 12·7
Shrewsbury ...	5600	6065	4·6	26967	13423	14972	28395	+ 5·3
†Wellington ...	1284	1327	4·7	5909	3049	3234	6283	+ 6·3
Wem ...	406	453	4·7	1878	987	1162	2149	+ 14·4
Wenlock ...	3447	3568	4·4	15703	7998	7868	15866	+ 1·0
Whitchurch ...	1006	1129	4·6	4930	2476	2745	5221	+ 5·9
All Urban Districts	20933	22763	4·5	99473	51426	54300	105726	+ 4·4*

RURAL DISTRICTS.	Inhabited Houses.			Population.				Percentage, Increase or Decrease between 1891 & 1901.
	1891	1901	Average No. of persons to each house.	1891	1901			
					Males.	Females.	Total.	
Atcham	4264	4329	4·8	21144	10314	10581	20895	— 1·1
Bridgnorth ...	1934	1886	4·5	9185	4200	4373	8573	— 6·6
Burford	277	263	4·6	1361	600	633	1233	— 9·4
Chirbury	899	812	4·3	4084	1796	1743	3539	— 13·3
Church Stretton ..	1019	1005	4·4	4631	2242	2237	4479	— 3·3
Cleobury Mortimer	1251	1292	5·2	5911	3717	3003	6720	+ 13·6
Clun	1585	1487	4·5	7459	3429	3395	6824	— 8·5
Drayton	2613	2655	4·4	11969	5703	6005	11708	— 2·1
Ellesmere	1649	1658	4·7	8119	3963	3945	7911	— 2·5
Ludlow	2242	2003	4·7	10863	4904	4681	9585	+ 5·0
Newport	1302	1284	4·7	6327	3071	2962	6033	— 4·6
Oswestry	3213	3220	4·5	15107	7357	7370	14727	— 2·5
†Shifnal	1923	1918	4·6	9120	4335	4509	8844	— 3·0
Teme	388	388	4·7	1870	970	876	1846	— 1·3
‡Wellington ...	2271	2499	4·7	10780	6000	5773	11773	+ 9·2
Wem	1801	1840	4·4	8241	4119	4147	8266	+ 0·3
Whitechurch ...	423	424	4·5	2031	956	968	1924	— 5·2
All Rural Districts	29054	29063	4·6	138202	67676	67204	134880	— 1·08

* The 1901 figures for Ludlow Borough include the additions made in November, 1901, and the same numbers have been deducted from the Ludlow Rural District, viz., 385 inhabited houses, 894 males and 927 females. The percentage increase or decrease has been calculated without these additions.

† This district (Shifnal) includes 184 inhabited houses, 427 males and 396 females in the Administrative County of Stafford.

‡ The population of the added part of Wellington, about 827, has not been transferred in this table from the Rural to the Urban District.

Table 2.
POPULATION IN AGE PERIODS.

URBAN DISTRICTS.			RURAL DISTRICTS.		
Age period.	Total.	Percentage at each age period.	Total.	Percentage at each age period.	
Under 1	2462	2·4	2965	2·2	
1—5	9255	8·9	12171	8·9	
5—10	11094	10·7	15176	11·2	
10—15	10818	10·4	14275	10·5	
15—25	19671	18·9	22940	16·9	
25—35	15508	14·9	18610	13·7	
35—45	12132	11·7	16007	11·8	
45—55	9337	9·0	12743	9·4	
55—65	7234	7·0	10719	7·9	
65—75	4522	6·1	7033	7·6	
75—85	1680		2859		
85—95	189		373		
95 & upwards	3		7		
	<u>103905</u>		<u>135878</u>		

Table 2 shows the distribution of the population in age periods in the urban and rural districts. At every age above 35 the percentage in rural districts is greater than in urban, and below 15 there is a slight excess in rural districts, but between 15 and 35 there is a large excess in urban districts. The higher percentage under one year of age in urban districts is due to a higher birth-rate, which more than compensates for the higher infantile mortality.

This difference in the distribution of the population necessarily influences the death-rates apart from any consideration of health conditions. In order to compare one district with another, or one district with the whole country, it is necessary to prepare factors of correction which remove the disturbing influence due to unequal distribution of age and sex. The factor for correcting the rates of the Registration County of Salop is '8654, that for the Administrative County is '8918, that for the combined Urban Districts is '9353, and that for the combined Rural Districts is '8622.

These factors, however, cannot be applied for separate diseases. The rate for a disease occurring mostly in childhood is principally dependant on the number of children living, and the rate for a disease of advanced age depends upon the number of old people in the district. This has a great bearing upon the mortality from cancer, under which heading it will be discussed

MARRIAGES.

The number of marriages in the Registration County in 1903 was 1,745, giving a rate of 13'4, compared with 14'2 in 1902, 14'7 in 1901, and 13'6 in 1900. The rate for England and Wales for 1903 was 15'6.

BIRTHS.

The birth-rate for the Registration County has declined slightly from 26'5 to 26'4, and that of the combined urban and rural districts from 26'7 to 26'6. As in previous years the birth-rate in the urban districts is higher than that in the rural districts, being 27'9 compared with 25'6. Oakengates and Dawley have again by far the highest birth-rate, the rates being respectively 37'6 and 36'3. Amongst the rural districts the rate at Cleobury Mortimer (29'4) was the highest. The illegitimate rate remains much higher than that of the country generally; and although its significance is not evident, the proportion of males to females remains lower than in the whole country.

BIRTHS.

Table 3.

	Births to 1000 Living.					Illegitimate Births to 1000 Births.				Males Born to 1000 Females Born.			
	Ten Years 1890-1899	1900	1901	1902	1903	Ten Years 1890-1899	1900	1901	1902	Ten Years 1890-1899	1900	1901	1902
Shropshire (Registration County)	26·8	25·7	26·2	26·5	26·4	72	62	59	60	1034	1032	1004	1021
England and Wales	30·0	28·7	28·5	28·6	28·4	42	40	40	39	1036	1033	1039	1039

I. (URBAN.)
STATISTICS FOR 1903 OF SHROPSHIRE URBAN DISTRICTS.

URBAN DISTRICTS.	Estimated Population 1903	Number of Births.	Birth- rate.	DEATHS UNDER 1 YEAR.		DEATHS AT ALL AGES.		Death-rate after correction for deaths of non- residents dying in the district, and of residents dying outside.	DEATH-RATES FROM VARIOUS CAUSES.						
				Number.	Rate per 1000 Births.	Number.	Rate.		Seven Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tuber. Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.
Bishop's Castle	1360	34	25·4	1	29·4	28	20·6	20·1	·74	·74	2·2	·0	3·7	1·4	2·2
Bridgnorth .. .	6052	143	23·6	9	63	87	14·3	12·7	1·1	·0	·66	·72	1·9	2·9	·72
Church Stretton .. .	1100	24	23·0	3	125	18	16·3	13·4	·96	·96	·0	·96	3·8	·0	·96
Dawley	7620	278	36·3	26	93	108	14·2	16·1	·26	·0	1·3	·0	3·8	1·9	1·0
Ellesmere	1960	49	25·0	5	102	33	16·8	13·2	·0	·0	1·0	·0	·5	·5	3·0
Ludlow	6328	169	26·7	14	82·8	106	16·7	16·6	1·1	·47	1·2	·15	1·5	2·0	·31
Newport	3219	70	22·2	5	71	53	16·4	14·9	·31	·0	1·2	·31	2·2	·63	·63
Oakengates	11000	414	37·6	55	132	187	17·0	17·7	·72	·18	·63	·90	2·1	1·9	1·2
Oswestry	9800	283	28·8	34	120	177	18·0	19·6	·61	·10	1·0	1·4	3·3	2·5	1·0
Shrewsbury	28766	739	25·4	86	116	457	15·9	15·1	·58	·55	1·5	·48	2·4	1·5	·89
Wellington	7200	179	24·8	25	139	104	14·4	13·7	·55	·0	1·6	·27	1·8	1·1	1·4
Wem	2200	61	27·7	7	114	49	22·2	20·0	·45	·9	·45	1·81	1·81	1·3	·9
Wenlock	15884	444	27·9	48	108	229	14·4	15·0	·94	·37	1·2	·37	2·8	2·2	·94
Whitchurch .. .	5274	125	23·9	14	112	64	12·1	11·3	1·3	·19	·38	·0	1·1	1·5	1·3
† Whole of Urban Districts	107577	3012	27·9	332	110	1700	15·8		·71	·30	1·18	·54	2·4	1·8	1·0
† Whole of Urban and Rural Districts	241294	6431	26·6	646	100	3576	14·8		·56	·26	1·0	·41	2·1	1·6	·94

The populations of the districts are those estimated by the District Medical Officers of Health.

† These populations are calculated on the assumption that the rate of increase between 1891 and 1901 has been maintained.

1821 and 827 have been transferred from the Rural to the Urban Districts on account of the Ludlow and Wellington extensions.

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Shropshire	28.8	28.1	28.2	28.3	28.4	42	40	40	39	1034	1032	1004	1021
(Registration County)													
England and Wales	30.0	28.7	28.5	28.6	28.4	42	40	40	39	1036	1033	1039	1039

I. (RURAL.)
STATISTICS FOR 1903 OF SHROPSHIRE RURAL DISTRICTS.

	Estimated Population 1903.	Number of Births.	Birth- rate.	DEATHS UNDER 1 YEAR.		DEATHS AT ALL AGES.		Death-rate after correction for deaths of non- residents dying in the districts, and of residents dying outside.	DEATH-RATES FROM VARIOUS CAUSES.						
				Number.	Rate per 1000 Births.	Number.	Rate.		Seven Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.
Atcham	20860	495	24·9	48	99	391	18·7	14·3	·35	·2	1·1	·2	1·9	1·7	·95
Bridgnorth	8573	221	25·7	27	122	116	13·5	15·0	·46	·0	·23	·35	1·3	1·7	1·1
Burford	1220	33	27·0	2	60	17	13·9	14·7	1·6	·0	4·1	·0	·0	·0	1·6
Chirbury	3540	91	25·7	7	77	54	15·2	17·8	·28	·0	1·9	·56	1·1	3·6	·34
Church Stretton	4450	117	25·9	9	77	56	12·6	13·7	·0	·22	·66	·0	1·5	1·3	1·3
Cleobury Mortimer	6350	187	29·4	12	64	67	10·5	10·5	·63	·0	·47	·31	2·2	·78	·94
Clun	6740	161	23·8	8	50	70	10·4	11·2	·14	·29	·59	·0	1·9	2·0	·74
Drayton	11675	298	25·5	38	127	174	14·9	15·4	·68	·43	·60	·77	1·6	1·0	1·0
Ellesmere	7900	183	23·1	16	87	97	12·2	14·0	·38	·13	1·0	·63	1·5	1·2	1·2
Ludlow	9535	270	28·3	13	48·1	87	9·1	10·4	·84	·21	·42	·0	1·2	·94	·84
Newport	6076	156	25·6	13	83·3	81	13·3	14·9	·33	·33	·82	·16	2·6	1·4	1·3
Oswestry	14850	390	26·2	38	97·4	242	16·2	15·5	·40	·40	·80	·74	1·9	1·7	1·2
Shifnal	8850	198	22·3	24	121	124	14·0	14·3	·22	·11	1·1	·56	1·7	1·1	·67
Teme	1846	46	24·9	2	43·4	24	13·0	14·6	·0	·54	1·62	·0	1·62	1·62	0·0
Wellington	11573	312	26·9	35	112	142	12·2	12·7	·52	·0	1·2	·0	2·1	1·9	·52
Wem	8265	218	26·2	21	97	117	14·1	15·2	·36	·60	·60	·24	1·9	1·9	·48
Whitchurch	1912	43	22·3	1	23	17	8·9	9·8	·52	·0	·0	·0	1·04	1·55	1·55
†Whole of Rural Districts	133717	3419	25·6	314	92	1876	14·3	.	·44	·22	·86	·32	1·8	1·5	·86
†Whole of Urban and Rural Districts ..	241294	6431	26·6	646	100	3576	14·8		·56	·26	1·0	·41	2·1	1·6	·94

The populations of the districts are those estimated by the District Medical Officers of Health.

† These populations are calculated on the assumption that the rate of increase between 1891 and 1901 has been maintained. 1821 and 827 have been transferred from the Rural to the Urban Districts on account of the Ludlow and Wellington extensions. In the Rural District of Wellington the Medical Officer of Health has deducted 200 instead of 827 from the population, so that his rates are too low.

DEATHS.

The total number of deaths in the county was 3,576, compared with 3,654 in 1902 and 3,745 in 1901.

Table 4.

PERIOD.			Urban Districts.		Rural Districts.	
	Shropshire.	England and Wales.	Shropshire.	England and Wales.	Shropshire.	England and Wales.
1903	14·8	15·4	15·8	*	14·3	*
1902	15·1	16·3	16·7	17·8†	13·9	13·7†
1901	15·5	16·9	16·2	17·7	15	15·3
1900	16·4	18·2	17·7	18·9	15·5	16·6

* For corresponding districts these are not yet available. † Corrected rates for Urban and Rural Groups of Counties.

This year, in calculating the death-rates, an attempt has been made to distribute the deaths in institutions amongst all the districts to which they really belong. This formerly was only done in certain districts, and in many instances deaths were taken off one district and not added to any other. The result was, that in 1902, 342 deaths were deducted, and only 168 added, shewing a discrepancy of 174. In 1903, 297 deaths were deducted, and 266 added, so that there was a discrepancy of 31 to account for. There were 38 deaths in the asylum and workhouses not belonging to the county, and there were 10 deaths in workhouses outside the county belonging to Shropshire. These deaths practically account for the difference in the numbers added and taken off, and therefore the distribution of deaths may be considered satisfactory.

The death-rate 14·8 was the lowest recorded since 1890, and when corrected for age and sex it was only 13·1. The death-rate for the rural district was 14·3, and when similarly corrected 12·3. The death rate for the urban district was 15·8, and when corrected 14·7.

With the exception of the small urban districts of Bishop's Castle and Wem, Oswestry Borough had the highest death-rate in the County, the rates from bronchitis and pneumonia and heart disease being particularly heavy.

INFANTILE MORTALITY.

The infantile mortality for the whole county was 100, being 110 for the Urban and 92 for the Rural Districts. The mortality in 1902 for the whole county was 102·7. The mortality in the whole of England and Wales for 1903 was 132, and with 179 towns excluded, 118.

The only rate amongst the Rural Districts that calls for special comment is that of Drayton. The Drayton infantile mortality has been high for several years, and this year, although somewhat lower, it is the highest of the Rural Districts. The average rate for the eight years 1895—1902 was 133; the actual numbers being 1895 120, 1896 135, 1897 120, 1898 140, 1899 98, 1900 170, 1901 134, 1902 145. The average rate in all the Rural Districts of the county during the last 4 years was between 96 and 97, whereas that of Drayton for the same period was 144, or nearly 50 per cent. in excess. It is always well to be careful in attaching much importance to statistics relating to small districts for one or two years, but when high rates extend over a series of years

they certainly deserve very serious consideration. In my report of 1902 I suggested that some light might be thrown on this question by comparing the mortalities in the different parishes. The parish of Drayton-in-Hales has a population equal to nearly half that of the whole district and includes most of the district which has a more or less urban character. As the first step in an inquiry it is very desirable to find out exactly which part of the district is responsible for the high rate. Dr. Macqueen points out that 11 of the deaths were due to premature birth.

Amongst the Urban Districts, Wellington with a rate of 139 and Oakengates with a rate of 132 were the highest. Neither of these districts had high rates in 1902. Speaking of Wellington Dr. Whitaker says: "9 deaths—2 from diarrhoea, 1 from tuberculosis, and 6 from errors of diet and management must be regarded as preventable"; and of Oakengates, "it will be seen that faulty nutrition and infectious disease caused 19 deaths . . ."

Dr. Gepp in his report on Atcham says " . . . but taking the whole list of causes there is evidence of a considerable waste of infant life due to errors of diet and management."

The most promising means of reducing infantile mortality are the teaching of hygiene, particularly the feeding, clothing, etc. of infants to the older girls in the Elementary Schools, and the visiting and teaching of mothers in their own homes. This is being done to a small extent by the County Council, but, if the matter is to be seriously grappled with, hygiene must be made a compulsory subject in Elementary Schools.

Table 5.
CHIEF CAUSES OF DEATH.
1902.

	URBAN DISTRICTS. 1903.		RURAL DISTRICTS. 1903.		WHOLE COUNTY. 1903. 1902.				ENGLAND AND WALES. 1902.
	Deaths.	Death- rates.	Deaths	Death- rates.	Deaths.	Death- rates.	Deaths.	Death- rates.	Death-rates.
Chief Zymotic Diseases.	77	·71	56	·44	133	·56	156	·64	1·64
Phthisis ...	127	1·18	115	·86	242	1·0	206	·85	1·233
Bronchitis ...	119	1·1	126	·94	245	1·0	287	1·19	1·323
Pneumonia ...	144	1·3	120	·89	264	1·1	283	1·17	1·407
Heart Diseases ...	195	1·8	207	1·5	402	1·26	353	1·4	1·440
Cancer ...	111	1·0	116	·86	227	·94	238	·98	·844

II. (URBAN.)

CAUSES OF, AND AGES AT DEATH, DURING YEAR 1903 IN THE URBAN DISTRICTS OF SHROPSHIRE.

CAUSE OF DEATH.	TOTAL DEATHS IN URBAN DISTRICTS IN AGE PERIODS.							CAUSES OF DEATH IN THE DIFFERENT URBAN DISTRICTS.													
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Bishop's Castle.	Bridg-north.	Church Stretton.	Dawley.	Elles-mere.	Ludlow.	Newport.	Oaken-gates.	Oswestry.	Shrews-bury.	Welling-ton.	Wem.	Wenlock.	Whit-church.
Small-pox	2	..	..	..	1	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..
Measles	19	3	15	..	1	..	..	..	5	..	..	..	1	..	..	..	3	1	..	5	4
Scarlet Fever	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Whooping Cough	10	3	7	..	..	..	..	..	..	..	..	..	..	..	..	5	3	..	..	2	..
Diphtheria and Membranous Croup	17	1	14	1	..	1	..	..	..	1	1	..	..	1	6	..	2	1	1	4	..
Croup	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	3	..	..	1	..	1	1	1	..	..	..	..	..	..	..	..	2	..	..	..	..
Continued Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	33	2	1	1	2	13	14	1	..	1	..	..	3	..	2	1	16	..	2	6	1
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	24	19	3	1	..	..	1	..	2	..	1	..	4	..	2	1	7	2	..	4	1
Enteritis	25	16	6	1	1	1	..	1	1	..	5	2	..	..	4	3	5	1	1	2	..
Puerperal Fever	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..
Erysipelas	4	..	..	..	1	2	1	..	..	..	..	..	..	..	..	..	3	..	..	1	..
Other Septic Diseases	6	..	..	..	2	4	..	..	1	..	..	..	..	..	3	1	1	..	..	..	..
Phthisis	127	2	8	8	19	85	5	3	4	..	10	2	8	4	7	10	44	12	1	20	2
Other Tubercular Diseases	58	17	12	8	5	15	1	..	5	1	..	..	1	1	10	14	14	2	4	6	..
Cancer—Malignant Disease	111	..	..	..	..	66	45	3	5	1	8	6	2	2	14	10	26	10	2	15	7
Bronchitis	119	28	12	..	..	32	47	4	4	3	14	1	5	5	13	16	28	3	3	18	2
Pneumonia	144	45	24	3	3	41	28	1	8	1	15	..	5	2	11	17	42	10	1	27	4
Pleurisy	9	..	..	2	1	6	..	..	..	..	..	..	1	..	..	3	5	..	..	..	..
Other Diseases of the Respiratory Organs	4	..	2	..	..	2	..	..	1	..	..	..	..	..	..	2	1	..	..	..	..
Alcoholism—Cirrhosis of Liver	25	..	..	..	1	23	1	..	..	..	2	..	2	3	1	1	8	..	2	5	1
Venereal Diseases	4	3	..	..	..	1	..	..	..	..	1	..	..	..	..	1	1	..	..	1	..
Premature Birth	59	59	..	..	..	..	..	..	2	..	2	1	4	3	10	6	11	6	1	11	2
Diseases and Accidents of Parturition	10	..	..	..	3	7	..	..	2	..	..	..	..	..	2	..	..	3	..	2	1
Heart Diseases	195	4	3	3	12	85	88	2	18	..	15	1	13	2	21	25	44	8	3	35	8
Accidents	36	2	4	4	3	13	10	..	3	1	1	1	2	2	5	2	10	..	2	6	1
Suicides	12	..	..	..	1	10	1	..	1	..	1	..	2	1	1	..	4	..	..	2	..
All other Causes	640	130	23	19	14	153	301	11	25	5	47	12	50	21	83	75	157	40	26	65	23
TOTAL	1701	334	136	53	70	563	545	27	87	14	123	26	105	47	195	193	438	99	49	239	59

II. (RURAL.)

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1903 IN THE RURAL DISTRICTS OF SHROPSHIRE.

CAUSE OF DEATH.	TOTAL DEATHS IN RURAL DISTRICTS IN AGE PERIODS.							DEATHS IN RURAL LOCALITIES (AT ALL AGES).																
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Atcham.	Bridg- north.	Burford.	Chirbury	Church Stretton.	Cleobury Mor- timer.	Clun.	Drayton.	Elles- mere.	Ludlow.	Newport.	Oswestry	Shifnal.	Teme.	Welling- ton.	Wem.	Whit- church.
Small-pox	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Measles	9	5	4	..	..	..	..	..	..	..	..	..	1	..	1	1	2	..	2	2	..	..	..	..
Scarlet Fever	6	1	2	1	..	2	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Whooping cough	15	8	7	..	..	..	..	3	1	1	..	..	2	..	4	1	2	..	3	..	..	..	..	..
Diphtheria and Membranous croup ..	10	1	3	5	1	..	..	1	1	1	..	..	..	1	2	..	..	1	1	..	..	1	1	..
Croup	2	..	..	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever { Typhus .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric	3	..	..	..	2	1	..	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..
Other continued .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	30	3	2	..	2	8	15	4	..	..	..	1	..	2	5	1	2	2	6	1	1	..	5	..
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	15	10	3	..	..	1	1	2	..	..	..	..	1	..	1	1	2	..	..	..	1	5	2	..
Enteritis	21	10	3	1	1	1	5	3	..	..	2	..	..	..	4	1	1	2	2	..	..	1	5	..
Puerperal Fever	2	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Erysipelas	2	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..
Other Septic Diseases	9	..	2	1	1	4	1	2	..	..	1	..	..	1	..	..	..	..	2	3	..	..	..	..
Phthisis	115	2	2	4	18	80	9	23	2	5	7	3	3	4	7	8	4	5	12	10	3	14	5	..
Other Tubercular Diseases	43	14	11	5	3	8	2	4	3	..	2	..	2	..	9	5	..	1	10	5	..	..	2	..
Cancer, Malignant Disease	116	..	..	..	..	70	56	19	10	2	3	6	6	5	12	10	8	8	18	6	..	6	4	3
Bronchitis	126	25	11	..	1	20	59	16	5	..	4	2	12	9	9	4	8	9	10	8	1	9	10	..
Pneumonia	120	25	17	2	5	41	30	21	6	..	1	5	2	4	10	8	4	7	19	7	2	16	6	2
Pleurisy	5	..	..	..	..	3	2	2	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..
Other Diseases of Respiratory Organs.	2	..	1	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
Alcoholism, Cirrhosis of Liver	21	..	..	..	..	17	4	3	2	..	..	..	2	..	1	..	3	2	4	2	..	1	..	1
Venereal Disease	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	66	66	..	..	..	..	..	8	7	..	3	2	4	2	11	2	1	..	7	4	..	10	4	1
Diseases and Accidents of Parturition.	5	..	..	..	2	3	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..	1	..	..
Heart Diseases	207	1	1	2	6	71	126	34	15	..	13	6	5	14	12	10	9	9	26	10	3	22	16	3
Accidents	60	3	9	4	5	25	14	12	4	1	2	1	2	2	6	5	2	5	7	1	1	7	2	..
Suicides	22	..	..	..	3	13	6	3	4	..	..	2	..	..	3	1	3	..	2	1	..	1	2	..
All other Causes	813	137	22	17	22	165	449	124	52	8	23	33	24	31	81	53	46	37	95	67	15	54	62	8
TOTAL	1847	314	100	44	73	535	781	285	116	18	63	62	67	76	180	111	100	91	231	127	27	148	126	19

Table 6.
ANALYSIS OF DEATHS AND DEATH-RATES FROM THE COMMON
INFECTIOUS DISEASES.
1903.

	Seven Chief Zymotic Diseases.		Small-pox.		Scarlet Fever.		Typhoid Fever.		Diphtheria.		Measles.		Whooping Cough.		Diarrhœa.	
	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.
Urban Districts ..	77	·71	2	·02	2	·02	3	·03	17	·16	19	·18	10	·09	24	·22
Rural Districts ..	59	·44	1	·07	6	·01	3	·02	10	·07	9	·06	15	·01	15	·11
Whole County ..	136	·56	3	·01	8	·03	6	·02	27	·11	28	·11	25	·10	39	·16
England & Wales	..	1·46	..	·02	..	·12	..	·10	..	·18	..	·27	...	·27	..	·50
Notifications			Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.						
Urban Districts ..	..	..	29	6·9	238	·9	32	9·3	81	20·9	..	..	..	..	..	..
Rural Districts ..	..	..	17	5·8	297	2·0	21	14·3	72	13·9	..	..	..	..	..	..
Whole County ..	..	..	46	6·5	535	1·5	53	11·3	153	17·6	..	..	..	..	..	..

INFECTIOUS DISEASE.

The death-rate from the common infectious diseases for the whole County was .56, compared with .64 in the previous year. The details of these deaths in the Urban and Rural Districts are given in Table

SCARLET FEVER.—Table 6 shows that the Urban and Rural Districts suffered almost equally as regards the case-rate. There were only 2 deaths in the Urban Districts in 238 cases, a most extraordinarily low mortality. The districts mostly affected were the Urban Districts of Whitchurch (97), Wem (22), and the Rural Districts of Wem (65), Church Stretton (29), and Shifnal (31). The most prolonged and serious epidemic was in Whitchurch Urban District, where, however, the type of the disease was, as elsewhere, very mild. During the last 3 years, there have been in this district 177 cases with 4 deaths, a mortality of about $2\frac{1}{4}$ per cent. Dr. Gepp says there was not much reason to suspect schools as a source of infection. In Whitchurch Rural District the cases were attributed to infection from the town. In Wem Rural District the cases were of a mild character and this was to a considerable extent accounted as the reason of its spread. In Wem Urban District the Medical Officer says that in the absence of hospital accommodation the disease spread notwithstanding other precautions. I have records of 8 schools being closed for scarlet fever, but these may not be complete. The only cases removed to hospitals during the year were 6 in Newport Urban District and 19 in Bridgnorth Urban District.

SMALL-POX.—Tables III., Urban and Rural, give the number of cases notified in each district, according to the District Medical Officers' Reports. These do not, however, include 6 cases occurring in the prison at Shrewsbury; and apparently two cases occurring in the small-pox hospital at Wellington have been included in both Urban and Rural Districts. With these additions and corrections there were 29 cases in the Urban Districts and 17 in the Rural Districts.

The details of the individual outbreaks were given in my quarterly reports for 1903. It is unnecessary therefore to enter into these particulars, but there are certain general facts and deductions that can be stated with advantage here.

There appear to have been 17 separate outbreaks, *i.e.*, outbreaks that could not be connected with any likelihood with any previous known cases in the county.

The following table shows that 13 of these outbreaks could be traced to infection from outside the county, and that in 11 instances the infection was imported by persons of the vagrant class. Eighteen other cases could be traced to infection from these vagrants.

SEPARATE OUTBREAKS OF SMALL-POX IN SHROPSHIRE IN 1903.

LOCALITIES.	Infection traced to outside the County.		Infection not traced to outside the County.
	Infection introduced by Vagrants.	Not introduced by Vagrants.	
Shrewsbury	1	1	...
Oswestry	2	...	...
Ludlow (Urban)	2	...	...
Market Drayton	2	...	...
Bridgnorth (Urban)	1	...	...
Atcham	1	...	...
Wellington (Urban)	1	...	1
Wellington (Rural) ... ..	...	1	...
Whitchurch (Urban)	1	...	...
Cleobury ... ..	...	...	1
Broseley ... ..	...	...	1
Shifnal ... ..	...	...	1
	11	2	4

Of the four untraced cases, the one at Shifnal was in all probability due to an unrecognised case in a tramp.

The serious danger that the county was exposed to from the introduction of small-pox through vagrants is very evident. Forseeing the danger I addressed a letter in the year 1902, to the various Boards of Guardians, advising that isolation should be provided and kept in readiness and that vagrants should be persuaded to be vaccinated as they passed through the workhouses.

Under the present state of the law the latter suggestion is perhaps impracticable, but there can be little doubt that vaccination of all vagrants passing through the workhouses in 1902 would have greatly limited if not prevented the epidemic of small-pox in 1903.

III (URBAN).
CASES OF INFECTIOUS DISEASE NOTIFIED IN 1903 IN URBAN DISTRICTS.

NOTIFIABLE DISEASE.	CASES IN URBAN DISTRICTS IN AGE PERIODS.								TOTAL CASES NOTIFIED IN EACH LOCALITY.													
	All Ages.	Age Periods.							1 Bishop's Castle.	2 Bridgnorth.	3 Church Stretton.	4 Dawley.	5 Ellesmere.	6 Ludlow.	7 Newport.	8 Oakengates.	9 Oswestry.	10 Shrewsbury.	11 Wellington.	12 Wem.	13 Wenlock.	14 Whitchurch.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.															
Small-pox	23	..	..	3	1	16	3	..	1	..	..	..	..	5	..	..	..	2	13	..	1	1
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	80	3	23	36	10	8	..	1	3	1	9	..	..	..	4	16	4	11	5	3	18	5
Membranous Croup ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Erysipelas	60	4	4	5	3	34	10	..	3	..	3	..	..	2	2	5	2	22	5	1	10	5
Scarlet Fever	238	2	52	140	29	15	..	..	20	..	..	..	..	3	10	8	9	20	12	22	37	97
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	32	..	2	8	10	11	1	2	4	..	3	..	..	..	..	9	6	8	..	..	..	..
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	6	..	..	..	..	6	..	..	..	..	..	..	1	..	..	..	..	3	..	..	2	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL	440	9	82	192	53	90	14	3	31	1	15	1	1	10	16	38	21	65	35	27	68	108
Measles .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	94	..	..	..	..	..	..	..	..	..	..	..	..	15	..	..	1	78	..	..	..	..

The serious danger that the county was exposed to from the introduction of small-pox by vagrants is very evident. . . Forseeing the danger I addressed a letter in the year 1902, to the various Boards of Guardians, advising that isolation should be provided and kept in readiness and that vagrants should be persuaded to be vaccinated as they passed through the workhouses.

Under the present state of the law the latter suggestion is perhaps impracticable, but there can be little doubt that vaccination of all vagrants passing through the workhouses in 1902 would have greatly limited if not prevented the epidemic of small-pox in 1903.

III. (RURAL).
CASES OF INFECTIOUS DISEASE, NOTIFIED IN 1903 IN RURAL DISTRICTS.

NOTIFIABLE DISEASE.	CASES IN RURAL DISTRICTS IN AGE PERIODS.							TOTAL CASES NOTIFIED IN EACH DISTRICT.																
	At all Ages.	Age periods.						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards	Atcham.	Bridgnorth.	Burford.	Chirbury.	Church Stretton.	Cleobury Mortimer.	Clun.	Drayton.	Ellesmere.	Ludlow.	Newport.	Oswestry.	Shifnal.	Teme.	Wellington.	Wem.	Whitchurch.
Small-pox	19	1	..	3	3	12	..	1	..	..	..	..	6	..	3	..	..	..	3	1	..	5	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	67	..	11	38	10	8	..	12	1	1	..	5	..	4	14	..	..	4	8	1	1	14	3	..
Membranous Croup ..	5	1	2	2	..	..	..	..	..	1	..	..	..	..	..	1	2	..	..	..	..	..	..	..
Erysipelas	53	1	1	1	4	43	3	6	..	2	4	..	6	3	9	..	7	4	4	1	..	4	2	1
Scarlet fever	297	2	54	193	30	17	1	33	22	7	2	29	19	6	13	8	27	9	9	31	..	5	65	12
Typhus fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
Enteric fever .. .	21	..	..	4	10	7	..	6	..	2	1	1	..	..	1	1	3	..	1	..	..	3	..	..
Relapsing fever .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued fever .. .	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Puerperal fever .. .	4	..	..	..	1	3	..	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	1	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	467	5	69	241	58	90	4	58	23	13	7	35	31	15	40	10	39	19	27	34	1	31	71	13
Other Diseases Notified.																								
Measles	15	1	4	7	1	2	..	..	..	..	6	..	..	..	..	..	..	..	..	..	9	..	..	..
Phthisis	5	..	..	..	1	4	..	..	..	..	5	..	..	..	0	..	..	..	..	..	..	..	..	..
Chicken-pox	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	26	..	3	..	..	..	..	..

vagrants is very small.

Boards of Guardians, advising that isolation should be provided and kept in readiness and that vagrants should be persuaded to be vaccinated as they passed through the workhouses.

Under the present state of the law the latter suggestion is perhaps impracticable, but there can be little doubt that vaccination of all vagrants passing through the workhouses in 1902 would have greatly limited if not prevented the epidemic of small-pox in 1903.

The following table shows how the cases were isolated :—

ISOLATION OF SMALL-POX CASES.

In Workhouse Hospitals.			In Isolation Hospitals.			In Prison Hospitals.			At Home.		
Oswestry	...	3	Shrewsbury	...	2	Shrewsbury	...	6	Wellington (U)	...	3
Drayton	...	3	Bridgnorth	...	1				Broseley	...	1
Atelham	...	1	Cleobury	...	6						
Shifnal	...	1	Ludlow	...	4						
Whitchurch	...	1	Wellington	...	13						
Ludlow	...	1									
TOTALS ... 10			26			6			4		

The four cases isolated at home were under conditions not likely to cause any spread, at the same time not absolutely free from risk.

Isolation at workhouse hospitals cannot be considered satisfactory and the removal of a case to a workhouse after notification would be a grave responsibility. These cases, however, seem to have been reported from the workhouse. Removal of a small-pox patient to a workhouse exposes the inmates to an unjustifiable risk, and in some instances it might be a grave injustice to the patient himself. There is also the further consideration that however necessary the removal may be on account of public safety, it could not be compulsorily enforced. Three of the districts which used workhouses for isolation purposes are now provided with hospitals.

The experience of the year clearly shows that there was a great necessity for the provision of accommodation for isolating small-pox, and the fortunate termination of the outbreaks must be attributed mainly to the fact that the cases occurred mostly where some provision had been made. In particular the second outbreak in the Wellington Urban District would in all probability have assumed dangerous proportions if a hospital had not been available.

MEASLES.—The total number of deaths in the county was 28, compared with 33 in 1902 and 50 in 1901. The districts most affected, judging by the mortality, were Bridgnorth (U.), Whitchurch (U.), and Wenlock (U.).

I have records of 11 schools being closed on account of measles, not including Shrewsbury, where the elementary schools were closed early in the epidemic.

In my previous reports I have mentioned the following points as fairly well established with regard to measles and school closure :—

- “ 1.—That measles, with our present system of elementary education, spreads principally through schools.
- 2.—That spread from house to house is relatively of a very much slower character.
- 3.—That in order to be of any use, the closure should take place early, probably before 7—8% of the children are affected.
- 4.—That school closure is much more likely to check an epidemic in a country than in a town district.
- 5.—That closure for less than one month is useless.

Of these No. 3 is the most important. The exact time at which it is desirable to close a school no doubt varies to some extent with the character of the epidemic and particularly its rapidity of onset. It is advocated by some that school closure should take place when the number affected approaches 10% of the scholars. I have no figures bearing upon this point in Shropshire, but it seems not unlikely that closure in many cases is applied too late to be of any use. If the period is passed when closure can have any influence in checking the disease then it is better to keep the school open. In order, however, to apply closure in the manner indicated above it is necessary that the Medical Officer of Health shall be supplied promptly with information of all cases that occur in schools. This is a matter that is worthy of the most careful consideration of the Education Authority."

Hitherto nothing has been done in this matter of notification from schools, but I am in hopes that a satisfactory scheme may be worked out.

The checking of measles in towns by school closure sometimes seems hopeless, but in country districts the results are much more evident. It must, however, be borne in mind that although the spread of measles is principally through schools it undoubtedly is partly due to infection at home, and consequently some effort at home isolation should be attempted. Dr. Garstang, Medical Officer of Health for several districts in Cheshire, has recently published his efforts, apparently very successful, to prevent the spread of measles by instituting a daily inspection of cases and giving instructions for the children to remain on their own premises. When a school has been closed for measles he has usually got the schoolmaster appointed a temporary inspector in order to pay a daily visit to all cases. I am inclined to think that this simple method of dealing with an epidemic of measles is in many instances likely to be effectual, and is well worthy of the consideration both of the Sanitary Authorities and of the Education Authority. In order to carry it out successfully prompt information and early closure are necessary.

My opinion is that measles is a disease that can be easily insulated from the outer world in an ordinary cottage house.

DIPHTHERIA.—The number of cases and deaths from diphtheria shows a considerable increase—153 cases and 27 deaths, compared with 105 and 13 deaths in 1902. The districts principally affected were Oakengates (16), Wenlock (18), Drayton (14), Wellington R. (14). At Oakengates the cases were attributed to defective scavenging. In this district schools apparently had no influence and in no instance did more than one case occur in a house.

In my report for 1902 I said: "It is very desirable that children who have suffered from diphtheria should not be allowed to return to school until their throats have been examined and declared to be free from diphtheria bacilli. With the present machinery it might be impossible to carry out this plan in every case. The difficulty could be met, although somewhat imperfectly, by imposing a prolonged absence on those cases not examined."

So far this suggestion has not been acted upon. It is a matter that the Education Authority might deal with advantageously.

TYPHOID FEVER.—There were 53 cases in the whole county, compared with 42 in the previous year. The districts mostly affected were Oakengates (9), Oswestry (6), Bridgnorth (4), Shrewsbury (8), Burford (2). The origin of most of the cases seems to have been obscure. In one case in Shrewsbury there was a history of eating shell fish and in another of drinking river water.

There can be little doubt that shell fish (oysters, mussels, cockles, etc.) are responsible for a very large amount of typhoid fever throughout the country and it is possible that the comparatively small number of cases in this county is partly due to the small amount of shell fish eaten. This is a matter worthy of careful investigation.

WHOOPING COUGH caused 25 deaths, compared with 44 in 1902 and 70 in 1901. The death-rate was .10, compared with .27 in England and Wales. As in 1902, there were no deaths over 5 years of age.

DIARRHŒA caused 39 deaths, compared with 49 in 1902. The death-rate was .16, compared with .5 for England and Wales and .31 for England and Wales less 179 towns. Again the figures are rendered of less value on account of the large number of deaths entered as enteritis, 46 in all. The highest rate amongst the Urban Districts was .63 at Ludlow, and the highest amongst the Rural Districts was .43 in Wellington District.

PUERPERAL FEVER.—Ten cases and 4 deaths occurred, compared with 7 cases and 3 deaths in the previous year.

ERYSIPELAS.—There were 113 cases and 6 deaths.

INFLUENZA.—The deaths directly attributed to influenza were 63, being 31 less than in 1902. Of these deaths, 33 were in the Urban Districts and 30 in the Rural Districts.

An epidemic somewhat resembling Epidemic Cerebro-spinal Meningitis occurred in connection with the Criftins School in the Ellesmere Rural District during the second quarter of the year, and at the same time a few similar cases occurred in the Borough of Oswestry.

The following short extracts from my reports for the second and third quarters of the year give the important facts:—

“Dr. Beresford has reported in Oswestry three or four cases which in his opinion are cerebro-spinal meningitis. He has also reported an epidemic of some infectious disease at Criftins School in Ellesmere Rural District. This epidemic has been investigated by Dr. Whitaker and pronounced to be a somewhat peculiar form of influenza, and with this diagnosis I concur. Unfortunately it was not found practicable to settle by bacteriological examination the exact nature of the disease in either case.”

“A memorandum has been issued by Dr. Reginald Farrar to the Local Government Board on “Illness resembling Cerebro-Spinal Meningitis in certain localities of the Ellesmere Rural and Oswestry Urban Districts.” In my last quarterly report I referred briefly to this outbreak, and said that, as regards the Criftins outbreak, I considered it to be a form of influenza, and at the same time expressed my sense of disappointment that it had not been found practicable to settle the nature of the disease by bacteriological examination. Dr. Farrar’s Report leaves the matter still an open question. He says with regard to the Criftins outbreak, “The features of the outbreak are compatible with a hypothesis of influenza of the so-called abdominal type with occasional cerebro-spinal symptoms in some of the severer cases.” Also “The outbreak occurring at Criftins and Oswestry appears to be comparable in many respects to ‘certain cases of anomalous illness characterised by pneumonia, and sometimes by meningeal symptoms, and frequently associated with tonsillitis and sore throat,’ occurring in certain localities of Northamptonshire, which were reported on by Dr. Bruce Low to the Local Government Board in 1891-1892.”

LUNG DISEASES.

BRONCHITIS AND PNEUMONIA.—Table 5 gives the rates from bronchitis and pneumonia in the Urban and Rural Districts and compares them with those of England and Wales. The difference in urban and rural rates from pneumonia is again marked, the urban rate being 46 per cent. in excess of the rural rate. In 1902 it was 88 per cent. and in 1901 73 per cent. in excess. The rates both from bronchitis and pneumonia were considerably less than in 1902, the highest being in Dawley and Church Stretton Urban Districts (3.8), Bishop’s Castle (3.7), and Oswestry (3.3).

TUBERCULOSIS.

Table 7.

	PHTHISIS.								OTHER FORMS OF TUBERCULOSIS.							
	1900		1901		1902		1903		1900		1901		1902		1903	
	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.
Urban Districts.	113	1.1	133	1.28	111	1.05	127	1.18	41	.42	48	.46	45	.43	58	.54
Rural Districts.	125	.9	103	.75	95	.70	115	.86	46	.33	50	.36	30	.21	43	.32
Whole County ..	238	.98	236	.98	206	.85	242	1.0	90	.37	98	.40	75	.31	101	.41

	Death-rates.				Averages for 5 years. 1896 to 1900.	Death-rates.				Averages for 5 years 1896 to 1900.
	1900		1901			1900		1901		
	1900	1901	1902			1900	1901	1902		
England and Wales ..	1.33	1.26	1.23		1.32	.56	.59	.50		.58

The rates from phthisis and other tubercular diseases are somewhat higher than in any of the three preceding years.

Out of the 242 deaths, 213 were between the ages of 15 and 65, the majority of these no doubt being at an active working age, and many of them the supports of families.

The rates for the various districts are given in Table I. The highest rates in the urban districts were Bishop's Castle, 2.2; Wellington, 1.6; Shrewsbury, 1.5; and in the rural districts, Burford, 4.1; Chirbury, 1.9; Teme, 1.62. Rates for small districts like Bishop's Castle, Burford and Teme for single years are of little significance. Considering that phthisis is a disease due to overcrowding, want of fresh air and direct contact with infected persons, usually in confined spaces, it must be considered that the rate of .86 in strictly rural districts is undoubtedly high. One has, however, to take into account the proportion of the rural cases that arise in towns, and go back to the country to recuperate. A very limited inquiry that I made in the Chirbury Rural District seemed to show that in that district during the last few years about 50% of the deaths from phthisis were of persons who had contracted the disease away, mostly in large towns. This matter is one which would repay careful inquiry. It really forms part of a much wider field of investigation, viz.: the tracing as far as possible the source of infection in all cases of phthisis.

Dr. Whitaker has pointed out in several of his reports that education of the children is probably the most important matter in the prevention of phthisis. With this opinion I am in absolute agreement. I have always placed education in this matter, as of the first importance whether it is a result of the use of tubercular sanatoria, or of notification, or of notices and bye-laws. It is very evident that these principles can be taught to children with much better results than to persons later in life.

Something has been done by means of circular letters and posters to educate the general public in the matter of spitting. Almost all the District Councils have distributed posters to the workshops in their districts. Posters have been sent direct to all the known factories in the County, numbering 654, and posters are now being sent to all the public houses in the County. Notices have been hung in the waiting rooms, booking halls, and in many cases the refreshment rooms

of most of the stations in the County. Nothing has yet been done to prevent spitting in railway carriages, although without doubt this is a serious source of infection. The Lancashire and Yorkshire Railway Company, and one or two London Companies, have adopted the plan of placing small notices requesting the public not to spit on the floor of their carriages. It is to be hoped that other companies may be induced to follow this example.

I am of opinion, as stated in my last report, that a bye-law preventing spitting on the floors of public buildings would work greatly to the public good.

Voluntary notification of consumption does not appear to have been adopted during the year by any authorities. It is in force in Drayton and Chirbury, but only five cases, all in Chirbury, were notified. To compulsory notification there is very considerable opposition which may be due to an absence of any real knowledge as to the effect of its working. In that case probably this opposition will be much reduced by the experience of compulsory notification which is now being gained in Sheffield. In the meantime some of the benefits of notification might perhaps be obtained through the co-operation of the medical men attending the cases. It is one of the great uses of notification, that instruction can be given directly to the patients thus enabling them to place themselves under better hygienic conditions, and also to lessen the danger of infection to the public. If sanitary authorities were to supply to medical men printed instructions for the use of consumptive persons they would no doubt in their discretion give these to their patients.

I have discussed the question of tubercular sanatoria in previous reports, and have pointed out how from the point of view of preventive medicine they must be considered quite secondary to other measures. There are, however, other points of view from which they should be considered. Without these sanatoria the lot of a poor consumptive person will become worse and worse as he is more rigidly excluded from all general hospitals. As affording great relief these sanatoria are of very great value, but one must suspend judgment as to their absolute curative effect. If the policy hitherto pursued with regard to the support of all hospitals except those erected solely for the prevention of disease, be pursued, sanatoria for consumptives should be supported partly by voluntary effort. As they are also directed to the prevention of infectious disease they should be aided by sanitary authorities. This is a matter that the County Council can alone properly consider.

In my report for 1902 I pointed out the following as the chief benefits of tubercular sanatoria from the point of view of prevention of disease:—

- (a) the education of the patient.
- (b) the inducement to arrive at an early diagnosis which a possibility of cure holds out.
The diagnosis of phthisis in its early stages is of the very utmost importance in preventing its spread.
- (c) The isolation for a short period during which the patient is prevented from being a source of danger.
- (d) the cure of a certain proportion of cases who are then no longer a danger to the community.

It should never be overlooked in our attempts to deal with the specific poison of consumption that the healthiness of the homes of the people and the observance of the ordinary rules of health are after all the most important factors in the prevention of consumption, so that the prevention of consumption enters into almost every branch of preventive medicine.

CANCER.

TABLE 8.

DEATH-RATES FROM CANCER IN THE URBAN AND RURAL DISTRICTS
FOR 1900, 1901, 1902, and 1903.

	URBAN DISTRICTS.				Average for the 4 years.		RURAL DISTRICTS.				Average for the 4 years.
	1900	1901	1902	1903			1900	1901	1902	1903	
Bishop's Castle ...	·6	·0	2·2	2·2	1·2	Atcham ...	1·1	1·19	1·1	·95	1·07
Bridgnorth ...	·6	1·32	1·1	·72	·99	Bridgnorth ...	·6	·81	·93	1·1	·90
Church Stretton...	—	·0	·0	·96	·3	Burford ...	—	·81	·82	1·6	·81
Dawley ...	·4	·79	1·3	1·0	·89	Chirbury ...	1·2	1·69	·85	·84	1·2
Ellesmere ...	·5	2·05	1·5	3·0	1·8	Church Stretton...	·8	1·11	1·54	1·3	1·2
Ludlow ...	1·5	·44	1·2	·31	·83	Cleobury Mortimer	·6	·74	1·2	·94	·85
Newport ...	2·64	·92	·95	·63	1·4	Clun ...	1·5	1·31	·73	·74	1·1
Oakengates ...	·5	1·10	·64	1·2	·9	Drayton ...	·7	·94	1·3	1·0	1·0
Oswestry ...	·5	·62	1·4	1·0	·9	Ellesmere...	·7	·88	·5	1·2	·85
Shrewsbury ...	·8	·73	1·07	·89	·88	Ludlow ...	·9	·78	·52	·84	·77
Wellington ...	·7	1·25	1·1	1·4	1·2	Newport ...	1·6	1·14	·83	1·3	1·2
Wem ...	—	1·85	2·3	·9	1·3	Oswestry ...	·7	1·21	·74	1·2	·97
Wenlock ...	·9	·94	1·07	·94	·97	Slifnal ...	·6	·34	1·2	·67	·75
Whitchurch ...	1·6	·57	·57	1·3	1·0	Teme ...	·5	1·08	·0	·0	·4
						Wellington ...	·6	1·01	·6	·52	·69
						Wem ...	·7	·72	1·08	·48	·75
						Whitchurch ...	—	1·55	·0	1·55	·78
All Urban Districts	·8	·88	1·1	1·0	·98	All Rural Districts.	·8	·99	·87	·86	·92

Table 9.

DEATH RATES FROM CANCER.

YEAR.	REGISTRATION COUNTY OF SHROPSHIRE.	ENGLAND.
1894	·705	·713
1895	·989	·755
1896	·923	·764
1897	1·060	·787
1898	1·028	·802
1899	·976	·829
1900	·931	·828
1901	·965	·842
1902	1·059	·844
Average of 9 years 1894—1902.	·959	·796
Average of 10 years 1881—1890.	·704	·589

Table 10.
CANCER IN AGE PERIODS 1881—1890.

AGE PERIODS.	Deaths from Cancer in age periods expressed as a percentage of total deaths from Cancer.		Death-rates from Cancer per 1,000.	
	Shropshire (Registration County.)	England and Wales.	Shropshire (Registration County.)	England and Wales.
35—45	8%	11%	·5	·6
45—55	19%	22%	1·4	1·5
55—65	26%	28%	2·5	2·8
65 and upwards	42%	33%	4·4	4·2

In 1903 the highest rates were in the small districts of Bishop's Castle and Ellesmere (U), and were evidently due principally to accident from the smallness of the numbers dealt with. Ellesmere Urban District has, however, had a persistently high rate for the last 3 years, and the highest average rate for the last 4 years of any district in the county, the rate being nearly double that of the whole county.

As shown by Table 10, the death-rates from cancer are largely influenced by age distribution. The only accurate method of comparing cancer rates in different districts is to compare them at the various age periods. I have not the material at my disposal for doing this, nor are the districts sufficiently large to give reliable results, except over a very extended period.

It is, however, possible to get fairly accurate results in another way. More than four-fifths of the deaths from cancer are of persons over 50 years of age, and it is consequently evident that the principal determining factor with regard to population is the number of persons over 50 years of age, and not the total population.

The proportion of the whole population over 50 years of age in England and Wales is 14·7 %; in the rural districts of Shropshire it is 19·9 %; and in the urban districts 17·3 %.

TABLE 11.

Gross and Corrected Average Death-rate for 4 years, 1900-1903, from Cancer.

URBAN DISTRICTS.			Gross.	Corrected.	RURAL DISTRICTS.			Gross.	Corrected.
Bishop's Castle	...	...	1.2	.74	Atcham	...	...	1.07	.71
Bridgnorth	...	...	.99	.80	Bridgnorth	...	...	.90	.66
Church Stretton	...	...	.3	.23	Burford	...	...	.81	.56
Dawley	...	...	.89	.75	Chirbury	...	...	1.2	.83
Ellesmere	...	...	1.8	1.37	Church Stretton	...	...	1.2	.75
Ludlow	...	...	.83	.64	Cleobury Mortimer	...	...	.85	.69
Newport	...	...	1.4	1.02	Chm	...	...	1.1	.80
Oakengates	...	...	.9	.82	Drayton	...	...	1.0	.74
Oswestry	...	...	.9	.80	Ellesmere	...	...	.85	.69
Shrewsbury	...	...	.88	.80	Ludlow	...	...	.77	.62
Wellington	...	...	1.2	1.08	Newport	...	...	1.2	.90
Wem	...	...	1.3	1.05	Oswestry	...	...	.97	.71
Wenlock	...	...	.97	.74	Shifnal	...	...	.75	.56
Whitchurch	...	...	1.0	.87	Teme	...	...	.4	.35
					Wellington	...	...	.69	.55
					Wem	...	...	.75	.54
					Whitechurch	...	...	.78	.61
All Urban Districts	...	...	.98	.83	All Rural Districts	...	...	.92	.68

The corrections made here are no doubt slightly in excess of the true corrections, but they are sufficiently near for all practical purposes.

The table demonstrates clearly that the urban rate from Cancer is considerably higher than the rural rate; that some of the high rates were due to a great extent to excessive number of persons above the age of 50; and that some districts like Bishop's Castle and Atcham, with an apparently a high mortality, had really a low mortality.

The corrected rate for these four years for the whole county is .74 compared with a rate of .83 for England and Wales for the years 1900, 1901, and 1902.

The conclusion arrived at in previous reports that the apparently high death-rate from cancer in the county was due to the age distribution of the population, and that the real death-rate was lower than that of the country generally is quite borne out by the above table. The important facts with regard to the district rates are that the rates of the urban districts of Ellesmere, Newport, Wellington, and Wem are excessive. None of these districts are large and two of them are very small, so that the figures must be accepted with some caution. The distribution of deaths from the institutions has in some of the districts probably not been carried out with sufficient care in previous years, thus detracting somewhat from the accuracy of the figures.

A systematic investigation into each death is necessary for any inquiry into the causation of this disease.

Table 9 shows that the apparent increase of Cancer throughout the country is still going on. It may be due to a small extent to an alteration in the age distribution of the population which is taking place, and to a larger extent to greater accuracy of diagnosis.

ANKYLOSTOMIASIS OR MINERS' WORM DISEASE.

Reports have been issued by the Home Office dealing with this disease in Westphalia and in Cornwall, and pointing out the danger of its spread throughout this country. I have, in my quarterly reports, briefly described the nature of the disease and its mode of spread, and indicated broadly the steps that should be taken.

Undoubtedly the most important matter is to prevent fæcal pollution of the mines, and consequent pollution of the miners' clothes boots, and hands. Probably the Home Office will issue regulations for the prevention of this pollution when their investigations are complete.

A system of quarantine and medical inspection should be instituted for all miners coming from abroad or from the infected Cornish mines.

Pamphlets describing the symptoms of the disease and the mode of detection have been sent to all the medical men practising in the mining districts of the county.

I would suggest that short pamphlets be drawn up for distribution among the miners, setting out the dangers of the spread of the disease, and how they may be avoided.

It is very desirable that arrangements should be made for examining the fæces of suspected persons. If this arrangement is not made for the whole country by the Home Office, it will naturally devolve upon the County Council.

BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Quarters of 1903.	For Typhoid Fever. Widal's Reaction.			For Diphtheria.			For Phthisis.	
	Positive.	Doubtful.	Negative.	Positive.	Doubtful.	Negative.	Positive.	Negative.
First ...	1	0	3	7	0	6	2	13
Second ...	0	0	6	14	0	8	6	23
Third ...	1	0	18	15	0	16	12	13
Fourth ...	0	0	8	19	1	20	10	17
Whole year	2	0	35	55	1	50	30	66
	37			106			96	

The total number of specimens sent was 239 compared with 165 in 1902.

The arrangement with Birmingham University continues to work well.

SCHOOLS AND SCHOOL ATTENDANCE.

The following quotations from some of the reports deal with most important matters in connection with school hygiene:—

OAKENGATES URBAN DISTRICT

“Of all the matters relating to the health of the community, and to the physical welfare of the coming generation, there is none which can, in my opinion, secure such permanent and far reaching results as the education of our children in the elements of hygiene.

“I believe it to be practicable to so grade this education that the children may from an early stage of their school career gradually become imbued with such instincts as will later on make them intolerant of dirt, foul air, miserable dwellings, unsuitable food and alcoholic excess, and a number of the other insanitary features which tend to shorten life and bring sickness and suffering amongst them. It is impossible to do much towards educating our adults. With the children who are to constitute the next generation rests the responsibility of ensuring a permanent and general improvement of the public health. I would strongly commend this subject to our County Council, who now have control of Elementary Education, as being one of the most important matters with which they can concern themselves.

ELLESMERE RURAL DISTRICT.

“Owing to the fact that few of the cases of non-notifiable ailments come under medical notice and to the lack of medical supervision of schools, the information available for, and the advice so much needed by school teachers in these outbreaks leave much to be desired. The whole question of the Public Health aspect of Public Elementary education is one which is well worthy of the consideration of the Education Authority, which is itself a Sanitary body. So far the Salop County Council does not appear to have taken much interest in the matter.”

ATCHAM RURAL DISTRICT.

“I have previously pointed out how closely school attendance and the spread of infection are connected, and that the managing bodies of Elementary Schools would do well to appoint Medical Inspectors to pay routine visits to the schools and advise the teachers in individual cases of doubtful or suspicious character, whether in school or kept at home without medical attendance. The want of funds for such purpose appears to have been hitherto the principal objection to this course, but now that the management and financing of the Schools of the County are centralised and in the hands of the County Council the question is one which that Authority should consider. The advantages appear to be quite obvious and some action very desirable.”

WENLOCK BOROUGH.

“In my opinion, these questions need serious consideration, and the point which I wish to establish is that the School Authority would do well to place the Schools under medical supervision, and appoint medical men to visit the Schools as a routine measure, and, upon request, to visit and advise the Teachers in individual cases. The cost of such a measure would not be very great, and, in my opinion, might probably be entirely recouped by securing an all-round better attendance and less interference with School work by closure. The principal advantages would be that early cases of infection, and slight unsuspected cases, would be detected and excluded from School; doubtful cases would be under trained observation, and children who are now kept away from School from alleged illness, but without medical attendance, would have their cases investigated. It would also render possible the dealing with another important question, namely, attention to physically defective children, and regulation of their work and exercise from the medical point of view.”

With these expressions of opinion I am in entire agreement. There is now a great opportunity which has never previously existed, the education authorities for the first time being bodies which are responsible to a greater or less degree for the physical well being of the people.

In my last report I stated the various matters affecting the health of the children, and which might with great advantage be considered by the Education Authority. As these have not yet been dealt with, I repeat them here:—

I.—Improvement of the sanitary condition and management of schools as regards air space, ventilation and heating, cleanliness, the general condition of the school with regard to the harbouring and spread of infection, the cloak room accommodation, the water supply, drainage, lavatory and closet accommodation.

II.—Measures for preventing infectious diseases spreading amongst the children:—

- (1) The issue of instructions and information to teachers as to how to deal with infectious diseases, including (a) the recognition of infectious disease in its early stages; (b) the exclusion of scholars for various periods on account of infectious disease; (c) precautions to be observed on the return of absentees.
- (2) The prompt notification to the Sanitary Authority by teachers of all cases of infectious disease occurring in their schools, so that school closure can, when necessary, be applied with promptness and efficiency.

III.—Physical training of the children.

IV.—Teaching of domestic hygiene in schools.

V.—Systematic medical inspection of school children. The value of such inspection would undoubtedly be very great, and although in counties of large area there are considerable difficulties to be overcome, it is a matter worthy of very careful consideration.

Of all these matters I look upon the teaching of domestic and personal hygiene as the one which is likely to have the greatest ultimate result if carried out in a practical manner and adapted to the nature of the district. Particularly in rural districts where the sewage disposal, water supplies, scavenging and other matters depend almost entirely upon the householders is this knowledge and training essential. I have been greatly impressed when making inspections of houses in rural districts with the very great improvement brought about in the healthiness and comfort of cottages, by the application of a little intelligence and knowledge of sanitary matters.

The lecturer employed by the Higher Education Committee has done good work of this kind, but as she points out in her report her lectures were much more appreciated at those schools where domestic hygiene had been taught.

Lectures were given in the following schools:—Wellington (National School and Wrekin Mixed School). Bridgnorth (Upper and Lower Town Schools), Hadley, Ketley, Lawley Bank, Ironbridge. Madeley Green, Coalbrookdale, Wem (National), Lydbury North, Oswestry (Trinity, National, and Council), Whitchurch (Church and Wesleyan), Donnington Wood. Courses of lectures were also given to women and girls at Newport, Market Drayton, Bridgnorth, Childs Ercall, Ironbridge, Corra, Lydbury North, Wem, Little Drayton, Buildwas, and Ludlow.

The lecturer also visited, in many of these districts, poor houses, where children had recently been born in order to teach the mothers in their homes.

Dr. Beresford raises the question of the desirability of children under five years of age attending school. This is a large question and may be viewed from many standpoints, but I think that there can be no doubt that attendance of very young children in school is associated with great danger, and is liable to cause a lowering of the standard of health. It is a matter which should receive the most careful consideration.

HOUSE ACCOMMODATION.

In my report for 1902 I gave an analysis of the census returns on the housing accommodation in the various districts of the county. This analysis showed conclusively that considerable improvement had taken place in the intercensal period 1891—1901. The change was not confined to a simple diminution of overcrowding but also to an improvement in the size of the houses in the county. In this period one-roomed tenements decreased by nearly 55%, two-roomed tenements by 25%, and three-roomed tenements by 8%.

Notwithstanding this improvement there remains much to be done, as the reports of the District Medical Officers show. The reports also point out the extreme difficulties in the way of applying effective measures for improving housing accommodation and diminishing overcrowding. The difficulties may be summed up in the scarcity of good houses, the small amount of building, and the unwillingness of local authorities to build. Under these conditions there is the greatest necessity for systematic and frequent house-to-house inspection in order that such houses as there are may be kept in the best possible condition. The following districts have completed or are carrying out a house-to-house inspection:—Atcham (R.), Church Stretton (R.), Clun (R.), Whitchurch (R.), Ellesmere (U.), Oakengates (U.), Shrewsbury (U.), Wenlock (U.), Whitchurch (U.). In some of these districts it is evidently carried out in a much less energetic way than in others. For instance, in Whitchurch (U.), Dr. Gepp says the sanitary inspector, who is the surveyor and engineer to the council, is carrying out a house-to-house inspection as he finds time.

A house-to-house inspection is recommended for Burford, Church Stretton (U.), Newport (U. and R.), and Wem (R.). The Newport Rural Council is of opinion that such an inspection is unnecessary. Reference to the second part of this report will show that there are certain parts of this district which undoubtedly need a frequent systematic house-to-house inspection. Where a complete survey has been made and carefully recorded, every succeeding survey need not necessarily cover the whole ground. In this way much time may be saved and more frequent surveys of the worst parts of a district made.

In the rural districts, generally speaking, the accommodation is said to be adequate in amount but many of the houses are worn out, small, and often damp and badly ventilated. The absence of much building hampers effective action.

The appended table gives some idea of the housing accommodation and overcrowding in the various districts

The Medical Officer of Teme Rural District says: "I have inspected various premises at different times and at your request reported on the condition of houses in the Parish of Stowe, and in these cases the sanitary defects found by your inspector and myself have been remedied; but there is still more work to be done in this direction throughout the district. Many of the houses, more especially those of the working classes, are in a deplorable condition; the roofs are often not watertight, walls damp, floors rotten and broken, and in some instances the occupiers have to carry water for domestic purposes from a distance."

Referring to Dawley, Dr. Gepp says: "The high birth-rate indicates increasing size of families and a tendency to overcrowding of families in small houses. There has been a certain amount of speculative building of cottages in this district in the past three years. Perhaps something like one hundred houses have been erected, mainly in the Old Park district, to let at rentals of from 3/6 to 5/- per week. These are in the main of cheap and not too solid construction. The Housing Act framed last year appears to offer easier terms to Local Authorities for building for the working classes, and I would say that the question is worth the serious consideration of the council, for if houses giving fair accommodation can be built soundly and without prospect of being a loss to the community, there is much advantage in the building of working class dwellings being undertaken by the Local Authority rather than by speculative enterprise, especially where houses of low rental are concerned."

Referring to Oakengates, Dr. Whitaker says: "There is undoubtedly a large number of houses which are not really fit for habitation, yet because of the lack of better houses at a low rental you are faced with a serious difficulty in attempting to deal with them. There is also an amount of overcrowding in which in many cases it is difficult to obtain evidence sufficiently precise to warrant legal proceedings, and even if such were carried out there would be the same difficulty of finding other accommodation. I would remind you that last year a new Act was passed which extended the period for repayment of loans borrowed by District Councils for the purchase of land and the erection of dwellings for the working classes. In this way it is possible to provide cottages at a less annual charge and I would commend this matter for your consideration."

Referring to Wellington Urban District, Dr. Whitaker says: "I have in previous reports pointed out what is, however, only too obvious, that there are a considerable number of small dwellings which are in an undesirable condition and are well nigh unfit for habitation. So far, however, there has been no practical solution of the difficulty. I would ask you clearly to discriminate between the two classes of dwellings, which, for want of better terms, I call dwellings for the working classes and dwellings for the poor. Those who can afford a rent of 5/- a week do not appear to suffer from lack of houses and private enterprise can always provide dwellings for

such. But as regards the poor whose income cannot go beyond 2/6 or 3/6 a week for rent, the matter is one needing careful attention. Some valuable assistance towards dealing with this important subject may be furnished by the new statute (Housing of the Working Classes Act, 1903), which allows a larger period for the repayment of loans raised for this purpose, and thereby permits of a substantial reduction of the weekly rental, viz.:—£200 at 3 per cent. for 40 years means £8 13s. od. for each year or 3/4 a week, whilst for 60 years it is £7 4s. 6d. or 2/9 a week—a difference of 7d. a week. There are, of course, many difficulties in the way, not the least being the special requirements of the Local Government Board, but the time has come when some definite effort should be made towards the reduction of slum property and the provision of modest but suitable dwellings for those earning small wages. A good many new houses have been erected during the year by private persons, but they are practically quite outside the class most needed in the town."

Dr. Whitaker here puts very forcibly before the Council a serious condition of things, which requires very careful consideration. There is a considerable number of houses which are practically unfit for habitation and which he is required by law to report as such to the Local Authority. Unfortunately in the present state of house accommodation no efficient steps could be taken on his representation. If the law is to be enforced with regard to old slum property, new houses must be provided, and under existing circumstances it seems likely that this will not be done unless by the Council.

A brief statement of the main facts of the law relating to housing of the working classes and the powers of the County Council may with advantage be made here.

Under the Public Health Act, 1875 (Sec. 97) a house may be closed when a nuisance renders it unfit for habitation. Apart from this section practically all action respecting closing and demolition of houses is taken under the Housing of the Working Classes Act, 1890. This Act has been modified in some details by the Acts of 1894, 1900, and 1903.

Part I. of the 1890 Act deals with demolition of insanitary areas and improvement schemes. It does not apply to rural districts and is little used outside large towns.

Part II. deals with unhealthy dwelling houses and obstructive buildings, and is in force throughout the country.

Under Sec. 30 it is the duty of the Medical Officer of Health of a district to represent to his authority any dwelling house that appears to him to be in a state so dangerous or injurious to health as to be unfit for human habitation. A representation from the Medical Officer of Health of the County submitted to the County Council and forwarded by them to the Local Authority (not being a borough) has the same effect as the representation of the Medical Officer of Health of the district (Sec. 52). Representations may also be made by any four householders living in or near the street in which the house is situated, or by the Parish Council (Local Government Act, 1894), in which cases the Medical Officer of Health of the district has to inquire and report.

Under Sec. 32 a duty is put on the Local Authority to cause an inspection of their district to be made from time to time to discover houses unfit for habitation and to take proceedings for closure if, on the representation of the Medical Officer of Health, any house appears to them to be in such a state. If a house after being closed is not made fit for habitation, it may under certain circumstances be demolished (Sec. 33). The Local Authority has also power to order obstructive buildings to be pulled down (Sec. 38).

Under Sec. 45 A Rural Sanitary Authority have to forward to the County Council a copy of any representation made to them of any house unfit for habitation, or of any obstructive dwelling, and, where a closing order has been made, particulars of such closure. Where the County Council are of opinion that a house specified in such representation should be closed, or demolished, or an obstructive building pulled down, they may after due notice take on the powers of the District Council. For the purpose of this section the officers of the County Council have the same right of admission to any premises as those of the District Authority.

Part III. deals with the building of lodging houses for the working classes, including separate houses and cottages. This part is adoptive, but in rural districts the consent of the County Council has to be obtained. Power is given to acquire land and to purchase, lease or build lodging houses.

The Local Government Board by a circular letter to Town Councils and Urban District Councils (dated 22nd September, 1903) have stated that they propose in future to allow 80 years for the repayment of money borrowed for the purchase of freehold land and 60 years for houses.

The attention of those authorities that do not from time to time make a systematic inspection of the district should be drawn to sec. 32.

Dr. Dallewy, speaking of Wem Rural District, says there is no supervision of the building of new houses.

The supervision of the building of new houses is one of the most important of the sanitary functions of Local Authorities.

The districts which have adopted building bye-laws and in which, therefore, the inspection of new buildings may be supposed to be carried out, are the Urban Districts of Bishop's Castle, Ellesmere, Ludlow, Newport, Oakengates, Oswestry, Shrewsbury, Wellington, and Whitechurch, and the Rural Districts of Atcham (parts), Cleobury Mortimer, Drayton, Ludlow, Oswestry, Shifnal, and Whitechurch.

Church Stretton Urban District has bye-laws drawn up and awaiting confirmation. Dawley has bye-laws under consideration. There remain of the Urban Districts Wem and Wenlock. It is possible for the Rural Districts to adopt bye-laws of much less stringency, so that the chief objection of Rural Districts has been removed.

URBAN DISTRICTS.

RURAL DISTRICTS.

URBAN DISTRICTS.			RURAL DISTRICTS.		
DISTRICTS.	Percentage of Houses of Three Rooms or less.	Houses of less than Five Rooms percentage overcrowded*	DISTRICTS.	Percentage of Houses of Three Rooms or less.	Houses of less than Five Rooms percentage overcrowded*
Bishop's Castle ...	17.7	4.6	Atcham	24.0	8.6
Bridgnorth	25.1	4.8	Bridgnorth	21.1	5.2
Church Stretton ...	18.3	11.9	Burford	23.0	6.0
Dawley	46.2	14.9	Chirbury	17.6	3.4
Ellesmere	9.7	2.3	Church Stretton ...	22.9	7.7
Ludlow	36.8	13.6	Cleobury Mortimer...	25.1	9.6
Newport	20.0	8.1	Clun	16.2	6.3
Oakengates	44.3	17.8	Drayton	18.4	6.1
Oswestry	11.0	4.8	Ellesmere	17.5	5.9
Shrewsbury	18.0	6.9	Ludlow	14.7	6.9
Wellington	22.6	5.4	Newport	32.2	11.1
Wem	5.9	3.7	Oswestry	21.8	10.1
Wenlock	36.5	9.4	Shifnal	29.6	9.9
Whitchurch	16.5	7.9	Teme	17.3	11.5
			Wellington	27.7	11.1
			Wem	23.8	7.6
			Whitchurch	24.7	6.5
All Urban Districts	26.0	9.7	All Rural Districts	22.3	8.3

* Calculated upon the assumption that all houses are overcrowded in which there are more than two persons per room.

HOSPITAL ACCOMMODATION.

Small-pox.—The accommodation for small-pox in the county, not including the hospitals at Bridgnorth, Newport and Drayton, which are primarily for other diseases are—

- | | | | |
|--------------------------------|-----|-----|--|
| 1.—A hospital for 6 beds | ... | ... | for Shrewsbury and a Berthon Hut to be used in an emergency. |
| 2.—A hospital for about 8 beds | ... | .. | for Cleobury Mortimer, Burford and Tenbury and Rock in Worcestershire. |
| 3.—A hospital for about 6 beds | ... | ... | for Ludlow Urban and Rural Districts. |
| 4.—A hospital for 6 beds | ... | ... | for Chirbury and the other districts in the Forden Union. |
| 5.—A hospital for 8 beds | ... | ... | for the districts of Whitechurch Urban and Rural, Wem Urban and Rural and Drayton Rural. |
| 6.—A hospital for 8 beds | ... | ... | for Shifnal and Dawley. |
| 7.—A hospital for 8 beds | ... | ... | for Wellington Urban District. |
| 8.—A hospital for 8 beds | ... | ... | for the Borough of Wenlock, at Broseley. |

Isolated Cottages.

- | | | | |
|-------------------------|-----|-----|--|
| 9.—An isolated cottage | ... | ... | for Bishop's Castle and Clun. |
| 10.—An isolated cottage | ... | ... | for the Southern part of Clun. |
| 11.—An isolated cottage | ... | ... | for Teme and Knighton Urban and Rural Districts. |

Also the following sites have been secured for putting up buildings or tents in case of emergency—

- | |
|---|
| 1.—One belonging to Oswestry Borough. |
| 2.— " " Oswestry Rural District. |
| 3.— " " Newport Urban and Rural Districts. |
| 4.— " " Church Stretton Urban and Rural Districts. |

Wellington Rural District has entered into an agreement, which now requires final confirmation, with the Urban Council for the use of their hospital. Oakengates has, I am sorry to say, failed to make a similar arrangement with Shifnal. These combinations are undoubtedly for the benefit of the county.

There still remain Ellesmere (U. & R.), Atcham, Bridgnorth (R.), without any accommodation whatever, and without any site upon which a temporary hospital could be put in case of emergency.

It is unnecessary here to enter into the history of the inquiry into the accommodation for small-pox. It will suffice to point out that the original proposal was to provide five small hospitals to serve the county. Already seven hospitals and three cottages have been provided, 4 sites obtained for the erection of hospitals if necessary, and there still remain 4 districts quite unprovided for.

Dr. Gepp points out the necessity for some provision for isolation of small-pox for Atcham. He suggests that a site be obtained, fenced, drained, and provided with water, and a caretaker's house built. Similar action is advised for Newport Urban and Rural Districts. Dr. Whitaker does not consider the hospital accommodation at Oakengates at all adequate.

Other infectious diseases.—The accommodation in the county consists of a small hospital at Bridgnorth, also used for small-pox, a small hospital at Newport, and a new hospital at Market Drayton for 8 beds, erected by the Drayton and Bloreheath Councils.

Dr. Cranstoun recommends that Ludlow Borough should, with or without the rural district, erect a hospital for diseases other than small-pox.

No applications have been made to the County Council under the Isolation Hospitals Act.

VACCINATION.

The Local Government Board Report not having yet been published I have no figures relating to vaccination later than those in last years report.

The vaccination in the districts Atcham, Clun, Drayton, Ellesmere (U) and Shrewsbury is spoken of as satisfactory.

DISINFECTION.

A moveable steam disinfector has been provided by the Wellington Urban District Council and has already proved itself of great use, otherwise no advance has been made in the County in the provision of disinfectors. Dr. Gepp repeats his recommendation for the provision of a steam disinfector for Shrewsbury. It is difficult to see how the position taken up by the borough can be justified.

The Central Midwives Board in framing their rules evidently thought that every sanitary authority was provided with a disinfector as the following rule shows :—

- E (5) “ . . . Unless otherwise directed by the local supervising authority all washable clothing should be boiled, and other clothing should be sent to be stoved (by the local sanitary authority) and then exposed freely to the open air for several days.”

In Shropshire it will only be possible to carry out this section in the urban districts of Bridgnorth and Wellington.

Improvements have been made in some districts where disinfection by spraying has been substituted for the ineffectual method of disinfection by burning sulphur. There are, however, many districts where the disinfection is left to the householder practically without supervision.

WATER SUPPLIES.

In most of the districts some progress has been made with regard to the provision of a better water supply. These improvements have been mostly by the extension of existing public supplies or by the cleansing and better protection of wells. With the exception of a small pumping scheme at Conover there have apparently been no new schemes during the year.

Dr. Gepp advises the Atcham Rural District Council to proceed under sec. 3 of the Public Health (Water) Act and cause those wells liable to pollution to be improved. He is of opinion that this can usually be done within the recoverable amount.

It is recommended that the water supplies to Boraston and Knowle in Burford Rural District be made more accessible. Attention is again called to the unsatisfactory condition of the Brockton (Chirbury) water supply. Filtration of the All Stretton and Little Stretton water supplies is recommended. Cleobury Mortimer Rural Council is advised to provide a public supply for Highley and to extend the public supply in Cleobury. Dr. Whitaker, speaking of the water supplies in Ellesmere Rural District, says: “ This is a subject that has not received quite as much attention as it deserves . . . ” Baschurch supply is as previously reported. Hadnall is badly in need of a better supply. It is advised that each locality in the Ellesmere Rural District be dealt with separately. A report of Dr. Macqueen's on the water supplies of the villages in Drayton Rural District is still under consideration. Dr. Gepp again recommends a public water supply for Ash Magna.

At Madeley and Broseley the public supply has been considerably extended.

At Shrewsbury steps are being taken to put an end to the present dirty and dangerous system. An upland surface scheme has been adopted and has been put before the ratepayers. It must be the unanimous opinion of all responsible persons that the present system of water supply should not be allowed to continue. The only practical alternative to an upland scheme—a filtered supply from the river—would undoubtedly from a public health point of view be far less satisfactory

The uncertainty with regard to the efficiency of filtration, the practical impossibility of treating sewage so as to destroy all disease germs, and the uncertainty with regard to future pollution of the river are matters which should weigh heavily in favour of an upland scheme. Dr. Gepp says: "I need only repeat my strong conviction that an upland scheme will prove to be the best solution of the water question and a safe investment for the borough."

Dr. Whitaker says of the Wellington Urban water supply: "I still regard increased and improved storage as necessary for your present needs and wish to see some adequate method of filtration provided." From a survey that I have recently made and from the knowledge that the gathering ground is used largely by holiday makers, I am of opinion that very efficient filtration is needed. Careful supervision of the gathering grounds is also very necessary.

Dr. Beresford expresses the hope that the Gobowen water scheme will soon be commenced.

Dr. Hawthorn says that "on the passing of the Combined Water Bill for this (Wellington Rural) and neighbouring districts depends a good supply to Hadley and the upper parts of Ketley and Lawley Bank." Apart from the merits of this bill, there can be no doubt that the district to be supplied is in urgent need of water. The need of water is infinitely greater in this district than in any other part of the county.

The water supply to Meole Brace and Bayston Hill was the subject of a Local Government Board Inquiry in December.

During the year I completed a report on certain parishes in the Wellington Rural District, begun in the previous year. I also made reports on (1) The water supplies of the parishes of Broughton, Clive, Grinshill, Lee Brockhurst, Loppington, Moreton Corbet, Shawbury, Stanton-upon-Hine-Heath, and Weston and Wixhill in the Rural District of Wem; (2) The water supplies of the Whitchurch Rural District; (3) The water supplies of the parishes of Whixall, Wem, and Prees in the Rural District of Wem.

The water survey of the Rural Districts of the county is now complete. No doubt since these reports were commenced much has been done to improve the water supplies, but in all probability many of the defects pointed out are still unremedied. The water supplies of the urban districts have never been fully reported on.

The provision of satisfactory water supplies to the more scattered parts of rural districts is one of the most difficult problems in public health administration. The difficulties that confront us now have been created by the carelessness or want of knowledge of those responsible for the provision of the supplies, and by the apathy of the sanitary authorities. Unfortunately the policy which in most districts is now being pursued with regard to new houses will not ensure the provision of better supplies in the future. The usual procedure in many districts in the county is to leave the selection of the position of the well entirely to the builder and to pass the water supply as satisfactory if on analysis it is found to be free from pollution. At this time there are no sources of pollution near the well and the subsoil around the house is pure. After the house has been in occupation some months or years the privy, the pigsty, the drains, and the manure on the garden may all be polluting the well. In other words, notwithstanding the precautions taken, it may after a year or two be as bad a water as the worst of those belonging to the old houses.

I came across several instances in my survey of the Wem and Whitchurch Rural Districts of houses only built one or two years and already having polluted water supplies.

All sanitary authorities should take steps to secure that wells to new houses are properly placed and satisfactorily constructed, and for this purpose they may with advantage—

- (1) Adopt bye-laws (if not already done) in which the minimum distance of the well from the graver sources of pollution is stated;
- (2) Draw up specifications for the building of wells. (The object to be aimed at is to prevent water gaining access to the well at a less depth than 10—12 feet.)
- (3) Advertise throughout the district that no well water will be certified as satisfactory unless the position and structure of the well is approved by the sanitary authority.

Particulars as to the Treatment of Sewage in the County of Salop.

Name of Sanitary Authority	ATCHAM RURAL DISTRICT.		BOROUGH OF BRIDGNORTH.	CHURCH STRETTON URBAN DISTRICT ADOPTED SCHEME.	DRAYTON. ———	BOROUGH OF LUDLOW.	LUDLOW RURAL DISTRICT. ———	NEWPORT URBAN DISTRICT.	SHIFNAL RURAL DISTRICT. ———	BOROUGH OF SHREWSBURY.	OAKENGATES URBAN DISTRICT.	BOROUGH OF OSWESTRY.	OSWESTRY RURAL DISTRICT. ———	WELLINGTON URBAN DISTRICT.	WELLINGTON RURAL DISTRICT. ———	WEM URBAN DISTRICT.	WHITCHURCH URBAN DISTRICT.
Name of District or Institution referred to ..	ATCHAM WORKHOUSE.	MEOLE BRACE.		ADOTTED SCHEME.	LITTLE DRAYTON.		CHAVEN ARMS, HALFORD, AND PARISH OF STOKESAY.	NEWPORT URBAN DISTRICT.	SHIFNAL TOWN SPECIAL DRAINAGE DISTRICT.		OSWESTRY WORKHOUSE.		HADLEY PROPOSED SCHEME.				
Date works completed and brought into operation ..	1893	1901	1901	Particulars of scheme not finally decided on	1903	Particulars of Scheme as presented to L.G.B.	1895	..	Jan., 1903	Aug., 1901	A new scheme about to be carried out.	1899	1903	..	Scheme described in last year's report not approved; certain alterations have been suggested by the Local Government Board.	1902	1886
Number of houses and approximate population connected with the Sewerage System ..	170 800	..	103 800	2000	1 houses connected at present Total population 1500	..	138 houses 650 population	..	2,300 population	6000 houses 29,000 population including County Asylum.		2180 houses 9550 population.	.. 200 population	1500 houses 7000 population		460 houses	1210 houses 5000 population
Do. do. unconnected ..	..	..	..	..	..	..	None	..	Only a few	A few isolated houses		32 houses 150 population. 400,000	..	Very few		About 20	None in drainage area
Dry weather flow of Sewage, in gallons, per day	..	12,000	..	50,000	Not yet gauged	Estimated 120,000	40—50,000	Estimated at 80,000	..	1,000,000		..	3500	250,000		60,000	100,000
Water supply per head (if public supply) in gallons	20	..	40	..	..	..	..	15	..	33		34	..	20		15.9	21
Is the sub-soil and surface water excluded, and to what extent?	Yes.	Half of surface water	No	..	Sub.soil water, yes	..	Roof and street water connected	Both excluded in streets newlysewered	Yes.	Subsoil water excluded. Surface largely excluded		No.	Yes	Partly excluded		No	Surface water partly excluded
Is any trade refuse turned into the Sewers? If so., any particulars available ..	No.	No.	One Slaughter house	..	Only from a Steam Laundry	..	Slaughter houses only	One brewery	None except slaughter houses	Small amount		Breweries, Tanneries, Fellmongers	No	4 Breweries		Tannery and Gas works	None
TANKS Number	2	2	2	2	..	Two 173,000	One 30,000	Two 10,000 ; 84,000	Four 201,600	Six 554,000		Two 58,000	One 5000	Ives tank 82,000		Six 36,000	Two 16,847
Total capacity in gallons ..	8,400	2,800	31,500	..	..	..	..	..	..	..		..	..	..		..	..
Used as subsidence, precipitation or Septic (open or closed) ..	Subsidence	Open septic	Septic closed	Closed septic	..	Septic	Subsidence	Open septic	Open	Precipitation		Subsidence	Covered septic	Precipitation		Precipitation	Subsidence
Is the flow continuous or intermittent ..	Continuous	Continuous	Continuous	Continuous	..	..	Continuous	Continuous	Continuous	Continuous		Continuous	Continuous	Continuous		Continuous	Continuous
Are tanks used altogether, or in series	In series	Together	Together	Together	..	Together	..	..	Altogether	Altogether		Together	..	..		Altogether	In series
CHEMICALS used and how added .. ..	..	None	None	None	..	None	None	None	None	Lime ordinarily Alumino-ferric at times 7—10 tons per week		None	None	Alumino-ferric placed in channel 11 cwt per week		Alumino-ferric in slabs	None
Quantity in grains per gallon, or amount per week	..	..	..	..	..	..	..	..	..	..		..	..	..		2 cwt per week	..
Amount of Sludge; how often removed and how disposed of .. .. .	..	Put on land every six weeks	..	..	..	..	One cart-load a month removed	..	Removed monthly by running into earth tank	About 12 tons per day, pressed and ploughed into land, 1 tank cleaned every 3 days		About 60 cub. yards of wet sludge per month, mixed with fine ashes & sold to farmers	Not removed since commencement	sludge pumped daily and carted away		..	10 tons monthly on land adjoining
If Septic tank not emptied since commencement what depth of sludge .. .. .	..	..	..	..	..	..	..	..	..	..		..	Cannot say	..		..	..
BACTERIA BEDS.—Number and total area in square yards .. .. .	..	One; 45 sq. yards	4 276 sq. yds.	4; 900 sq. yds 2 storm; 600 square yards	One; 324 yds	5; 1066 each Propose to fill 3	..	8; total area 1120	..	..		9 primary; area 3600 9 secondary; area 3000	6; 106	..		..	..
Depth of Beds .. .. .	..	8 feet	4 feet	3 feet	7 feet	4'—6"	..	3 feet	..	..		4'—6"	4 are 4ft. deep 2 „ 2ft. „	..		..	..
Form and construction of Beds, sides open or closed .. .. .	..	Round; closed sides	Concrete sides; closed	Rectangular, bottom and sides lined with concrete	Formed of pipes	..	..	Closed; concrete bottom, brick walls	..	..		Earthen embankments and divisions	Brick, with closed sides	..		..	..
Nature and size of filtering materials .. ..	..	Cinders various sizes, from 1½ in. to very rough	½ in furnace Clinkers	Coke, breeze, burnt ballast, or clinker 4" cubed and smaller	¾" to ¾" granite chippings	Clee Hill Stone 1'—4" of ¾"-1½" 2'—0" of 1½" ¾" 1'—0" of ¾" 1½"	..	Cinders screened to about ¾" min	..	..		Chiefly cinders from house refuse Primary ¾"—1½" Secondary ¾"—1½"	Cinders, medium and rough	..		..	..
Method of using beds continuous or intermittent	..	Continuous	Intermittent	Intermittent	Continuous	Continuous	..	Intermittent	..	..		Intermittent	Continuous; one set resting whilst the others are working	..		..	..
If intermittent, number of fillings per day, and the usual periods of (1) filling (2) standing full (3) emptying (4) resting ..	..	..	Varies—3 beds worked at one time, each bed in turn has a rest of one week	3 fillings (1) (2) (3) (4) 2 hours	..	..	..	..	..	..		Vary according to amount to be dealt with; Primary from 3—6 fillings Primary cycle 1—2—1—4 Secondary cycle 1—3—1—3	..	..		..	..
Available capacity of beds, and if diminishing, at what rate? .. .. .	..	..	..	24,000 c. ft.	..	..	..	..	..	..		Primary beds have decreased in capacity 30% in two years Secondary decreased slightly	1800 cub. feet	..		..	..
Method of distribution on the beds .. ..	..	By sprinkler arm	By channels over surface	Direct flow from troughs	By automatic tipping channels	Zinc distributors	..	..	..	..		By wooden troughs	By perforated pipes	..		..	..
Rate of filtration per square yard, in gallons per 24 hours .. .. .	..	..	..	..	To be accurately gauged; supposed to deal with 200 gals. per yard per day	..	..	..	..	..		Average for year, wet and dry—Primary 136 Secondary 165	40	..		..	..
Area of land used for filtration or irrigation ..	2½ acres.	..	..	5 acres	2½ acres	4½ acres	12 acres and more available	3 acres available	7 acres	About 100 acres used for broad irrigation by effluent from tanks through distributing mains		No land	No land	7½ acres		..	43 acres; distributed by carriers

In dealing with water supplies to old houses it frequently happens that rows or small groups of houses could be properly supplied at a small cost by sinking one well in a good position and by providing one pump in a convenient situation. In this way the cost to each house could be brought well within that prescribed by sec. 3 of the Public Health (Water) Act. The interpretation put upon this section by the Local Government Board and contained in the following letter absolutely prevents any such action :—

“ LOCAL GOVERNMENT BOARD,
“ WHITEHALL,
“ 6th June, 1904.

“ SIR,

“ I am directed by the Local Government Board to advert to your letter of the 31st ultimo, and in reply, to state that they are advised that it is only in cases where water can be supplied within a reasonable distance of each house, separately considered, at a cost not exceeding that limited by section 3 of the Public Health (Water) Act, 1878, that a rural sanitary authority are empowered to call upon an owner to provide a supply under that section. It is true that the sanitary authority may execute works for a joint supply under sub-section (5) of section 3, but they can only do so in cases where the owners have failed to comply with notices served under that section, and, as pointed out above, such notices could not be given to any particular owner at all unless a supply could be obtained by him for his house, or for each of his houses considered to be without a proper supply, at a cost within the prescribed limit.

“ I am, Sir,

“ Your obedient Servant,

“ JOHN LITHEBY,

“ Assistant Secretary.”

If this is the legal interpretation of the section I would suggest that it is one of those matters in which County Councils might with great advantage to rural districts make an effort to bring about an alteration in the law. As the President of the Local Government Board is about to introduce a Public Health Bill the present seems to be an opportune time for considering the matter.

SEWAGE DISPOSAL AND POLLUTION OF RIVERS.

The accompanying table has been brought up to date so far as possible and shows the position of the county with regard to sewage works.

The details given with regard to Church Stretton and Ludlow are of schemes awaiting the sanction of the Local Government Board. There are also schemes before the Local Government Board for Oakengates and Hadley. Very few observations have been made upon the efficiency of these various schemes. I am now engaged in reporting upon them in detail and the result should be of considerable help as a guide to future action.

The following districts have no public sewage works, or any proposed schemes for any part of the districts :—Urban District of Dawley, Ellesmere, and Wenlock ; Rural Districts of Bridgnorth, Burford, Chirbury, Church Stretton, Cleobury Mortimer, Clun, Ellesmere. Newport, Teme, Wen, and Whitchurch. A scheme for the treatment of Bishop's Castle sewage is still being considered.

The following condensed extracts from the District Medical Officer's Reports indicate some of the matters that require action :—

At Pontesbury, much of the sewage is discharged into the brook.

The sewage of Dawley and the Borough of Wenlock finds its way into the Severn.

At Wem Dr. Whitaker says that no action had been taken up to the end of March to improve the sewage outfall. The sewage is turned practically untreated into the watercourse. Dr. Dallewy makes no reference to this matter.

The Third and Fourth Reports of the Royal Commission on Sewage Disposal have been published. The principal recommendations of the Third Report (1) that it shall be made the duty of the Local Authority to provide sewers to receive trade effluent as well as domestic sewage, (2) that a new properly equipped Central Authority be established under the Local Government Board for the general superintendence of the country with regard to the prevention of the pollution of water, for the settling of disputes between Local Authorities and manufacturers, and for the collection of information with regard to abstraction and waste of water, (3) that River Boards be formed throughout the country for the prevention of the pollution of rivers and public water supplies.

This last proposal has no doubt been made to a great extent because so many County Councils have failed to properly enforce the Rivers Pollution Prevention Act.

The fourth report deals with tidal waters and contamination of shell fish with sewage.

The only cases of pollution of rivers that have so far been before the County Council are (1) the pollution of the Bratton Brook by the Wellington Urban District Sewage, (2) the pollution of the Tetchill Brook by the Ellesmere Urban District Sewage, (3) the pollution of the River Meese by the effluent from the Tibberton Paper Mill. In the last instance action has been taken, but whether efficient or not I am not yet in a position to say. In the two former cases nothing has yet been done, although apparently preliminary steps are being taken.

SEWERAGE AND DRAINAGE.

Various minor improvements have been made during the year in the sewerage and drainage of many of the districts.

The sewerage of Cleobury has been improved, and that of Highley made satisfactory. The scheme of sewerage at Oakengates, approved by the Local Government Board, has been commenced. Drainage regulations have been adopted at Church Stretton.

Further steps are recommended for dealing with the drainage of Albrighton.

Dr. Gepp says, speaking of Wenlock Borough, that with an abundant water supply good sewerage will become more necessary.

At Ludlow and Wellington the Councils are advised that all drains should be water-tested. There can be no doubt that every district that is sewered should have proper drainage regulations, and should insist upon the drains being carefully inspected, and tested with water before being covered up.

SCAVENGING AND EXCREMENT DISPOSAL.

In the Rural Districts the scavenging is done by the occupiers, except in Shifnal. At Market Drayton a public system is still under consideration, and, judging by the character of the town, a public system of scavenging is eminently desirable. Possibly the high infantile mortality may be some extent due to this absence of any public scavenging.

Dr. Beresford hopes to see the scheme for scavenging the large villages carried out.

At Cleobury the absence of a system of scavenging leads to many nuisances—a public system is recommended. Dr. Gepp refers to his previous reports on the defects arising from want of system in scavenging in Dawley. Dr. Whitaker says that the scavenging of Oakengates should be put on a better footing, and he also advises Ellesmere Urban Council to undertake the scavenging and cause weekly removal of refuse.

There is a weekly removal of refuse at Shrewsbury, Wellington, Church Stretton, Wem, and Bridgnorth (partial), and a daily removal at Oswestry.

The public scavenging at Madeley has resulted in great improvements.

The scavenging at Whitechurch is principally by the occupiers.

No decision has been arrived at with regard to the provision of a destructor in Shrewsbury. This matter is under consideration at Ludlow and has been the subject of a Local Government Board Inquiry.

Excrement disposal, with few exceptions in the Rural Districts, is by means of privy closets with underground vaults. They are often of a very insanitary type—the pits being large, leaky, and admitting surface water. The substitution of water closets for privy middens is going on slowly in several of the urban districts. In Wem some privies have been converted to pan-closets. This procedure Dr. Whitaker condemns, as the district is sewered and provided with water. It may be stated as a general principle that where houses are surrounded by ample space the proper method of excrement disposal is by earth closets, frequently emptied and applied to the soil. Districts in which the houses have not ample space for treating all sewage should be sewered and the houses provided with water-closets. To provide sewers and to allow the construction of pan-closets is unnecessarily expensive and at the same time it multiplies the sources of nuisances.

INSPECTION OF COWSHEDS, DAIRIES, ETC., AND OF DAIRY CATTLE.

The inspection of cowsheds in the county is undoubtedly carried out in a very unsatisfactory manner. In almost all the districts registers are now kept, but in many instances they are very incomplete. There are 9 Rural Districts and 6 Urban Districts without regulations. Particularly in North Shropshire, where dairy farms are very numerous, is the enforcement of the law so lax. In the Drayton Rural District the inspection of cowsheds is under the consideration of the council. In the Wem Rural District a register is now being made—hitherto there has been no inspection. This district contains a large number of milk farms, mostly sending milk outside the district. The proper inspection of these farms is one of the most important duties of the Sanitary Authority. In Oswestry Rural District, where hitherto there appears to have been little inspection, registration is being enforced and regulations are about to be made. In Ellesmere Rural District registration has only just recently been enforced.

An Interim Report of the Royal Commission appointed to inquire into the relation of Human and Animal Tuberculosis has just been published. It is of the greatest importance, setting at rest as it does the question of the identity of human and bovine tuberculosis.

Experiments were conducted with twenty different strains of tuberculosis material which was introduced into the bovine animals either by feeding or by injection under the skin. Of these, seven gave rise to generalised tuberculosis and the remainder to tuberculosis of a more or less localised nature.

“We have very carefully compared the disease thus set up in the bovine animal by material of human origin with that set up in the bovine animal by material of bovine origin, and so far we have found the one, both in its broad general features and in its finer histological details, to be identical with the other.”

“Meanwhile we have thought it our duty to make this short Interim Report, for the reason that the result at which we have arrived, namely, that tubercle of human origin can give rise in the bovine animal to tuberculosis identical with ordinary bovine tuberculosis, seems to us to show quite clearly that it would be most unwise to frame or modify legislative measures in accordance with the view that human and bovine tubercle bacilli are specifically different from each other, and that the disease caused by the one is a wholly different thing from the disease caused by the other.”

This report places us in the position that we were in before Koch made his famous pronouncement at the Tuberculosis Congress in 1901. Until the report of the Royal Commission was issued it was useless to expect any action with regard to the inspection of dairy cattle by Sanitary Authorities. The scientific part of the question has to a great extent been cleared, but the difficulty of administration remains, being partly due to absence of proper machinery and partly to conflicting interests. There will probably be no efficient inspection until it is undertaken by the County Council or some central authority.

SALE OF FOOD AND DRUGS.

The County Chief Constable has furnished me with particulars of samples taken during the year 1903 by the County Police.

Return shewing number, description, and result of Analysis of Samples taken under Food and Drugs Act in the County during year ended 31st December, 1903:—

Nature of Sample.	Total.	Genuine.	Adulterated.		Remarks.
			Number.	Percentage.	
Whisky ...	32	26	6	19%	1 Cautioned, 1 Dismissed and 4 Convicted.
Brandy ...	6	5	1	17%	
Rum ...	1	1	...	...
Gin ...	17	11	6	35%	1 Cautioned, 2 Dismissed and 3 Convicted.
Beer ...	28	27	1	3%	
Butter ...	17	17	Dismissed.
Lard ...	14	14	...	...
Ginger ...	11	11	...	...
Pepper...	16	16	...	...
Coffee ...	14	12	2	14%	
Milk ...	26	23	3	11%	1 Cautioned, 2 Convicted.
Mustard ...	5	5	...	...
Oatmeal ...	7	7	...	...
Arrowroot ...	8	8	...	...
Cheese ...	4	4	...	...
Tea ...	4	4	...	...
Flour ...	2	2	...	...
Golden Syrup...	1	1	...	...
	213	194	19	9%	

Twenty-seven samples were taken in the Borough of Shrewsbury, and one was found to be adulterated.

The number of samples taken in the previous year was 227. Forty samples of milk were taken in 1903 and 30 of butter. From a public health point of view, apart from trade morality, it is desirable that the number of samples of milk and butter should be largely increased, and samples should also be taken of various foods, including milk, butter, cream, jam, potted meats and fish for examination for preservatives. The injury to health caused by the use of preservatives in a large number of articles of food is somewhat difficult to estimate, but it certainly must be considerable. In my report for 1902 I said: "It is very desirable, however, that samples should be taken from time to time for this purpose, and that proceedings be instituted in those cases where preservatives are used so as to contravene the law as it at present stands."

As I have previously pointed out it is extremely important that no preservatives should be allowed in milk.

The Final Report of the Royal Commission appointed to inquire into Arsenical Poisoning from the Consumption of Beer and other Articles of Food and Drink was issued during the year. The report is a most important contribution to one branch of food inspection.

Even if the report were confined to the question of arsenic in beer it would have very great practical interest. This is illustrated by the fact that in 1902, twelve months after the arsenic poisoning epidemic, there was an outbreak of 13 or 14 cases of arsenic poisoning with three deaths in the Borough of Halifax. The question naturally arises—are sufficient precautions being taken in other localities to prevent similar occurrences?

The Report is divided into eight parts, of which No. IV.—Ways in which food are liable to be contaminated with arsenic; No. VII.—Recommendations as to the improvements in official control over the purity of food; and No. VIII.—Recommendations as to the proportions of arsenic in food which should now be held to constitute an offence under the Sale of Food and Drugs Acts—are the most important to the Authorities having the carrying out of these Acts.

It is shown conclusively that apart from the highly poisonous sugar that caused the great epidemic, malt is usually the source of arsenic when present in beer, the arsenic being derived from the coal or coke used. The excessive prevalence of “alcoholic neuritis” in the North of England, particularly Manchester and Liverpool, as compared with London and the South of England, is attributed to the use of gas coke as a malting fuel. The evidence of Dr. Reynolds appears to show that a large proportion of the “alcoholic neuritis” that has occurred in Manchester for many years back has really been arsenic poisoning. Similar evidence seems to show that what was known as “alcoholic heart” has disappeared in Manchester since the beer was freed from arsenic.

The inquiry also brought out the fact that persons have suffered severely who have drunk only one or two pints of beer daily.

Par. 38: “On review of all the evidence on the subject, we are of opinion that the exclusion of small quantities of arsenic from food and drink is of greater importance than might at first be supposed and calls for more attention than it has hitherto received.”

Information is given in some detail with regard to the kind of fuel to be used in malting and the precautions in using it. With respect to gas coke the report says: “we are of opinion that this fuel should not be used by maltsters unless in connection with special methods of treatment . . . and then only after careful selection of the coke.”

In Part VI. the Report says: “The existing machinery of public health administration provides little, if any, system of official control over the proceedings of manufacturers of food or food ingredients.” and “At present there is no public authority to define, for example, impurities or adulterations which should be specifically looked for in the course of examination of particular foods submitted for analysis under these Acts, or to lay down official “standards” for the use of all concerned, respecting the nature and extent of impurity or adulteration in a given food which without question should render its vendor or warrantor liable to proceedings under the Acts.”

To remedy this the Report recommends that the Local Government Board, properly equipped, should undertake inquiries into the conditions of food manufacture, and that the Board should advise local authorities in the matter of obtaining greater purity of food supplies, supplying them with information with respect to the foods that need sampling and the adulterants to be looked for. A recommendation is also made that the Local Government Board should, generally speaking, be the Authority to prescribe standards for the purpose of the Food and Drugs Act. With respect to arsenic it is suggested that it is quite proper that penalties should be imposed whenever that substance is present in a liquid food in proportion of 1¹/₁₀th of a grain to the gallon or in a solid food of 1¹/₁₀th of a grain to the pound.

I would here emphasise two points (1) that we cannot estimate the injurious effect of arsenic in food because for every recognised case of arsenic poisoning it is quite possible that there are a large number of cases of a slight character unrecognised; (2) that the danger of poisoning by beer contaminated with arsenic is by no means a thing of the past.

In order to safeguard consumers against arsenical beer I advised that samples of beer and malt be taken regularly. Samples of beer have been taken, but it has been held that samples of malt cannot be taken under the Food and Drugs Acts.

With the authority of the Sanitary Committee I have forwarded to all brewers and maltsters in the county extracts from the report dealing with the ways in which malt and beer become contaminated with arsenic.

FACTORIES AND WORKSHOPS.

The details of the inspection of workshops will be found in the accompanying table.

In many districts the act has little application. In one report, Bridgnorth Rural, no mention is made of any registration or inspection of workshops.

INSPECTION.

On Table IV. are given the particulars of Inspection.

In 1902 I called attention to what appeared to be the very inadequate house inspection in Wellington and Wem Rural Districts. The number of inspections in Wellington (R.D.) show no improvement and those in Wem (R.D.) only a slight improvement.

MIDWIVES ACT, 1902.

In my last Annual Report I gave a brief epitome of the Act with regard to the duties of the local supervising authority. The sanitary committee of the County Council has been constituted this authority.

After the rules of the Midwives Board were issued in August, 1903, it was evident that the supervision of the midwives would be a work of considerable magnitude. The County Council has therefore determined to appoint a trained nurse as a lecturer on hygiene and as an inspector under the Midwives Act. At present 86 midwives have registered and the number is slowly increasing. Probably one might fairly correctly estimate the number that will register when the Act has been in working order for some years as about double that number.

The rules framed by the Midwives Board are divided into seven sections. Of these, A, B, D, and G do not directly concern the local supervising authority. In sec. C the training of the midwives is laid down. It shall include the attendance on twenty labours, under satisfactory supervision, the nursing of 20 lying-in women for ten days after labour, and the attendance on a sufficient course of instruction of not less than 3 months.

Under sec. E are laid down very elaborate rules, giving directions to midwives, her duties to the patient, her duties to the child, the cases that she is not allowed to attend alone, the record and books that she must keep, and the notifications that she must send to the local supervising authority.

Sec. F gives power to the local supervising authority to enforce the rules. It runs:—

“In carrying out Section 8 (3) of the Midwives Act it shall be the duty of the local supervising authority to suspend a Midwife from practice who contravenes the directions for the use of disinfectants and for the employment of proper safeguards against the spread of infection, and any other rules for the purpose laid down by the Central Midwives Board, and in the exercise of that duty the local supervising authority shall, after communicating their decision in writing to the Midwife concerned, at once report any suspension (with the grounds thereof) to the Central Midwives Board.”

FACTORY AND WORKSHOP ACT, 1901.

SUMMARY FOR 1903.

URBAN DISTRICTS.	Register kept.	Total Workshops and Work-places including Bakehouses.	Underground Bakehouses.			List of Outworkers Received.	Number of Visits paid.	Notices sent.	REMARKS.
			Number.	Certificates Granted.	Certificates Refused.				
BISHOP'S CASTLE..	Yes	35	5	0	..	0	51	0	Sanitary condition satisfactory.
BRIDGNORTH ..	..	..	..	..	..	..	..	..	Factories and Workshops have been inspected and found sanitary.
CHURCH STRETTON	Yes	15	4	0	..	0	24	5	
DAWLEY ..	.. Yes	38	14	0	..	0	59	20	Condition of Work-shops satisfactory ; Bakehouses improved.
ELLESMERE ..	.. Yes	..	..	..	..	..	..	..	Regularly inspected.
LUDLOW ..	.. Yes	69	7	..	..	..	..	..	Sanitary conditions found Satisfactory.
NEWPORT ..	.. Yes	77	7	1	1	3	80	..	Condition satisfactory.
OAKENGATES ..	.. Yes	51	11	..	..	..	..	..	Register not fully entered up, nor properly inspected ; Bakehouses mostly satisfactory.
OSWESTRY ..	.. Yes	93	16	0	..	..	..	..	Bakehouses generally good, several re-built ; Workshops fair, so far as inspected.
SHREWSBURY ..	.. Yes	219	29	2	1	0	190	27	General condition satisfactory.
WELLINGTON ..	.. Yes	72	9	..	..	..	..	..	Satisfactory with few exceptions.
WEM ..	.. Yes	49	6	..	..	..	..	..	Satisfactory on the whole.
WENLOCK ..	.. Yes	96	26	3	1	2	149	21	Condition satisfactory.
WHITCHURCH ..	.. Yes	73	11	0	..	0	90	..	Condition satisfactory.
RURAL DISTRICTS.	Register kept.	Total Workshops and Work-places including Bakehouses.	Underground Bakehouses.			List of Outworkers Received.	Number of Visits paid.	Notices sent.	REMARKS.
			Number.	Certificates Granted.	Certificates Refused.				
ATCHAM ..	.. Yes	66	13	..	..	..	74	5	Satisfactory.
BRIDGNORTH ..	..	..	..	..	..	..	..	..
BURFORD ..	..	2	2	..	..	..	..	..	The only workshops are two small Bake-houses.
CHIRBURY ..	..	..	..	..	..	..	..	..	Satisfactory so far as inspected. M.O.H. recommends that a complete list be obtained.
CHURCH STRETTON	Yes	26	3	0	..	..	30	..	Satisfactory.
CLEOBURY MORTIMER	..	..	..	..	..	..	..	..	The Act has little application, Workshops are inspected.
CLUN ..	.. Yes	73	7	0	..	..	90	3	Condition satisfactory.
DRAYTON ..	.. Yes	104	13	1	1	0	..	..	General condition good.
ELLESMERE ..	.. Yes	52	7	..	..	..	..	..	All visited and found on the whole satisfactory.
LUDLOW ..	..	..	..	..	..	..	..	..	Inspected and found satisfactory. Some of the older Bakehouses are badly constructed.
NEWPORT ..	.. Yes	18	2	0	..	0	10	4	Condition satisfactory.
OSWESTRY ..	.. Yes	55	11	..	..	0	0	21	Condition good.
SHIFNAL ..	.. Yes	..	..	..	..	..	..	..	The Workshops are visited and defects remedied.
TEME ..	..	..	..	..	..	..	..	..	Workshops reported to be in a good sanitary condition.
WELLINGTON ..	.. Yes	21	6	..	..	..	..	3	
WEM Yes	37	12	0	The Bakehouses have been visited by the M.O.H. and found satisfactory.
WHITCHURCH..	.. Yes	10	1	9	1	Sanitary condition good.

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Record of Sanitary Work done during the Year 1903.

Table showing the work done by the various Sanitary Inspectors; the Returns are made on a uniform plan as far as possible.

SANITARY AUTHORITY.	Number of Houses which have been Inspected during the year, either in connection with outbreaks of Infectious Disease, or in consequence of complaints, or in course of a systematic Sanitary Survey.	Total Number of Notices of all kinds served, including both formal and informal Notices.	Approximate Number of such Notices complied with.	PARTICULARS OF SANITARY MATTERS REFERRED TO IN THE ABOVE NOTICES.								Number of cases in which proceedings before Magistrates have been taken for failure to comply with any of the above Notices.	PROCEEDINGS TAKEN BEFORE MAGISTRATES WITH REFERENCE TO			Letters Written.	
				Houses to be disinfected after Infectious Disease.	Deficient or Objectionable Water Supply.	New Drains to be constructed or old Drains to be amended.	New Closets to be provided or old ones to be amended in construction.	Houses damp, dirty, or admitting rain or weather, or otherwise in a bad Sanitary condition.	Offensive accumulations of all kinds.	Animals so kept as to be a Nuisance.	Houses Overcrowded.		Exposure of Bad Meat for Sale.	Public Exposure of Infected Person ^s or things.	Offences against By-Laws and Regulations relating either to Lodging Houses, Slaughter Houses, Dairies and Milkshops, &c.		
RURAL DISTRICTS.																	
Atcham	842	140	94	27	5	31	51	33	24	2	2	..	..	..	..	..	142
Bridgnorth	2000	97	80	..	28	55	49	7	..	4	1	..	..	..	..	..	..
Burford	24	..	..	..	3	2	..	2	..	..	..	..	..	..	..	..	..
Chirbury	470	115	61	11	..	23	13	6	15	..	1	..	..	..	..	..	..
Church Stretton ..	811	31	30	..	6	3	3	3	13	3	..	..	..	..	..	..	107
Clebury Mortimer ..	200	24	20	..	6	18	11	12	3	1	1	1	..	..	..	..	..
†Clun	96	11	10	9	..	8	4	4	..	..	..	..	..	..	..	..	17
Drayton	624	241	212	21	31	60	34	3	83	7	2	..	..	..	..	..	..
Ellesmere	400	23	20	..	2	9	6	1	2	..	3	3	..	..	..	..	..
Ludlow	164	40	35	20	?	10	25	6	10	12	10	..	..	..	..	..	30
Newport	200	32	30	10	..	9	4	2	..	..	7	..	..	..	..	..	..
Oswestry	350	152	130	20	3	6	4	25	70	19	3	..	..	..	..	..	100
Shifnal	394	143	142	..	6	18	21	14	84	7	3	..	..	..	..	..	205
Teme	19	10	19	1	..	4	1	1	..	..	..	..	..	..	..	..	..
Wellington	84	17	10	3	..	3	8	..	..	..	3	..	..	..	..	..	10
Wem	85	17	..	16	6	6	..	2	..	..	1	..	..	..	..	..	..
Whitchurch	60	26	20	3	2	6	3	1	10	..	1	..	..	..	..	..	44
URBAN DISTRICTS.																	
Bishop's Castle	207	22	16	1	..	1	..	1	12	..	..	..	..	..	..	..	11
Bridgnorth	1000	14	13	32	3	13	5	3	9	8	..	..	..	..	..	..	..
Church Stretton ..	310	17	17	..	..	6	3	1	13	..	1	..	..	..	..	..	39
Dawley	1261	498	482	13	1	68	21	16	354	3	8	..	..	..	..	..	530
Ellesmere	968	55	54	..	..	3	18	1	30	..	2	..	..	..	..	..	..
Ludlow	250	73	60	15	1	63	..	12	6	..	3	10	..	..	..	2	350
Newport	120	8	7	9	2	..	36	..	771*	6	..	..	..	..	..	..	..
Oakengates .. ..	..	72	..	39	..	135	79	40	2	5	5	..	..	..	..	..	641
Oswestry	1600	150	135	12	..	78	39	24	21	2	..	..	..	..	..	..	14
Shrewsbury	2086	866	848	59	53	254	135	89	232	19	25	..	..	..	..	..	72
Wellington .. ..	..	81	52	..	..	10	23	39	9	..	..	..	..	..	..	..	81
Wem	820	41	39	17	..	38	6	7	872*	3	3	..	..	..	..	..	18
Wenlock	1006	358	319	..	3	101	79	67	95	17	2	..	..	..	..	..	343
Whitchurch	645	105	93	78	2	42	45	10	43	1	..	2	..	1	..	..	104

† These figures are for the Clun Division only.

* Including work done in public scavenging.

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It has not been possible to obtain the Rainfall Statistics for Shropshire, as the "British Rainfall," from which the figures are taken, is not yet published. I have obtained detailed figures from three stations in the County, through the kindness of the observers.

The year 1903 was an exceptionally wet one, the average rainfall for these three stations being 37·31, compared with an average of 26·88 in 1902, or an increase of 38 %.

V.

WOOLSTASTON RECTORY, SALOP.				THE CORPORATION GAUGE, SHREWSBURY.				THE RECTORY, WEM.							
MONTH.	RAIN GAUGE { Diameter of Funnel, 5 inches. Height { Above Ground, 1 ft. of Top. { Above Sea Level, 800 ft.			Corres- ponding Total Depth, 1902.	Number of days on which 01 or more Rain fell.	Greatest Fall in 24 Hours.	Total Depth.	RAIN GAUGE { Diameter of Funnel, 5 inches. Height { Above Ground, 1 ft. of Top. { Above Sea Level, 270 ft.							
	Greatest Fall in 24 Hours.		Total Depth.					RAIN GAUGE { Diameter of Funnel, 5 inches. Height { Above Ground, 1 ft. of Top. { Above Sea Level, 270 ft.							
	Inches.	Depth.						Inches.	Depth.	Number of days on which 01 or more Rain fell.					
January ..	2·74	·62	4	20	1·51	2·11	·58	4	15	1·73	2·66	·41	4	25	..
February ..	2·19	·95	23	13	·93	1·70	·60	24	9	1·30	1·46	·41	24	15	..
March ..	4·81	·62	13	26	1·52	3·79	·56	13	18	2·43	4·11	·71	13	28	..
April ..	1·47	·60	28	13	2·74	·99	·38	28	7	1·99	1·34	·39	28	15	..
May ..	4·70	1·18	5	18	3·37	2·55	·49	3	12	·79	2·95	·56	5	18	..
June ..	3·16	·96	14	13	2·94	1·89	·43	14	11	2·70	1·13	·27	17	12	..
July ..	3·13	·90	19	19	1·54	2·70	·73	21	17	4·79	2·53	·58	21	21	..
August ..	5·23	·90	24	23	6·13	4·35	·96	17	16	1·49	4·43	·93	17	22	..
September ..	3·98	·83	10	24	1·93	3·80	·86	10	14	·87	3·85	·89	10	24	..
October ..	6·78	1·10	27	31	3·27	5·57	1·00	27	25	1·97	5·76	1·24	14	30	..
November ..	2·70	1·00	27	20	2·49	2·97	1·00	27	12	1·32	2·27	·65	27	26	..
December ..	2·68	·56	12	20	2·14	1·82	·50	12	12	3·96	1·64	·28	12	24	..
TOTAL ..	43·57	..	..	240	30·51	34·24	..	..	168	25·34	34·13	..	..	260	24·97

Part II.

Abstracts, etc., of Annual Reports of the Medical Officers of Health for the Various Districts.

ATCHAM (Rural).

<i>Medical Officer of Health</i> ...				M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in acres</i>	...	..	...	...	...	...	125,207
<i>Population</i>	<i>at 1901 Census...</i>			...	...	...	20,895
<i>Number of inhabited houses</i>	„	...	...	...	...	...	4,329
<i>Number of persons per house</i>	„	...	...	...	...	...	4.8

General Character of the District.

“The District is a very large one, some 22 miles in length by some 14 in extreme breadth, its area being 125,207 acres. The River Severn runs through it from North-West to South-East, dividing it into two parts, of which the Northern and smaller part is continuous with the Midland plain, on the New Red Sandstone. The general elevation of this part is from 200 to 300 feet, O.D. The Southern and larger part is more elevated, rising gradually from the river, Southward and Westward, from 200 to some 600 feet, O.D., with considerably greater elevations on the hillsides forming the Western and Southern borders. The Geological formation of this part is broken and diverse. The hills are the outliers of the Cambrian and Silurian ranges of Wales and Shropshire, and these formations project into the District. There are also detached but considerable exposures of the Coalmeasures, and of the Permian Red Sandstone. There is in both parts a variable, but generally considerable, thickness of drift overlying the strata. The drainage is on both sides to the Severn, by numerous small tributary streams.”

“The District is entirely rural in character, for the most part fertile and highly cultivated, and supporting a comparatively large agricultural population, distributed in numerous important villages, in smaller hamlets, and largely also in scattered isolated dwelling houses. The density of population is equal to about 108 persons to the square mile. A few Coalmines are worked around Hanwood, but many parts of the small Coalfields are abandoned.”

Statistics.

The natural increase of the population during the year was 104. The population, estimated to the middle of 1903, was 20,860, and corrected for public institutions, is 19,890.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	14.3	.35	.2	1.1	.2	1.9	1.7	.95	99	24.9
Averages for years 1895-1902	15.1	..	..	..	..	..	..	..	88	24.7

The general death-rate, the zymotic death-rate, and the infantile death-rate are below those for Rural England and Wales.

The zymotic rate was due to 1 death from scarlet fever, 3 from whooping cough, 1 from diphtheria, and 2 from diarrhoea.

Infantile Mortality.—Dr. Gepp says: “. . . but taking the whole list of causes there is evidence of a considerable waste of infant life due to errors of diet and management.”

The general mortality ranged from 16.3 in the Westbury Registration District to 11.8 in the Pontesbury District.

One case of small-pox, 33 of scarlet fever, 12 of diphtheria, 5 of enteric fever, and 6 of erysipelas were notified.

The case of small-pox was contracted outside the County and arrived at Atcham Workhouse with the eruption out. It was isolated in the small-pox ward. *Scarlet Fever.*—The cases were of a mild form and the only epidemic was one of 15 cases in the neighbourhood of Hanwood. Notwithstanding cautions given, a child was sent on a message whilst still peeling. *Diphtheria.*—The cases were scattered and with little or no connection. Attention is called to the small recurrent outbreaks of diphtheria in the Alberbury Parish. *Enteric Fever.*—The six cases included two from the County Asylum and two imported. Measles, whooping cough, chicken-pox, and mumps were more or less prevalent and led to the closure of no less than 18 schools. Information leading to closure was in many cases late, but in one instance early information led to good results.

The advisability of routine inspection of scholars by medical inspectors is pointed out.

Hospital Isolation.—The necessity for some provision for small-pox is pointed out. It is suggested that a site be obtained, fenced, drained, and provided with water and a caretaker's cottage built. Pulley Common is mentioned as suitable.

Disinfection.—Disinfectants are supplied. The sanitary inspector sprays most infected rooms with chinosol.

Vaccination.—Primary good. In 1901 out of 1,205 births 1,052 were successfully vaccinated, 100 died unvaccinated. There were only 7 conscientious objectors.

House Accommodation.—Adequate in amount, but many are old and worn out and damp, too small for the families and badly lighted and ventilated.

A house-to-house inspection is in progress and the district has been divided and a second inspector appointed.

Overcrowding.—Needs attention in the house-to-house inspection.

Sewerage and Drainage.—Meole Brace, Dorrington, Pontesbury, and Minsterley are sewered mostly with piped sewers. At Pontesbury much of the sewage is discharged into the brook. Some work has been done at Asterley and Cressage in opening, cleaning, and relaying sewers.

Excrement Disposal.—Principally privies with underground vaults—often very objectionable. A number are dealt with from year to year; council advised to deal with all that are a nuisance. At Dorrington, earth-closets are recommended to replace offensive and badly situated privies.

House Refuse removed and disposed of by house-holders.

Water Supply.—The council is advised to proceed under Sec. 3 of the Public Health (Water) Act, 1878, and cause improvement to be made in the structure of those wells that are liable to be polluted. Dr. Gepp is of opinion that most of the wells can be made practically safe for less than the recoverable amount, £8 13s. 4d. Work has been done at Berrington, Bayston Hill, Bicton, Ryton, and other places in providing and repairing pumps and cleaning wells. At Concover a well has been sunk in the sandhole near Norton and pumped by a wind engine. A trial boring is being made for Horsebridge. The water supply of Meole Brace and Bayston Hill was the subject of a Local Government Board Inquiry in December.

Slaughter-houses, Cowsheds, etc.—12 slaughter-houses reported as in fair condition; 39 dairies and cowsheds on the register—new model regulations have been adopted during the year. Two milk farms were found during the year by the Medical Officer of Health which were not on the register.

BISHOP'S CASTLE (Urban).

<i>Medical Officer of Health</i> ...				M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in Acres</i>	...	...	...	...	...	...	1,867
<i>Population</i>	<i>at 1901 Census...</i>			...	...	..	1,378
<i>Number of inhabited houses</i>	..	...	...	...	...	...	354
<i>Number of persons per house</i>	,,	...	...	...	...	...	3.9

Physical Features and General Character of the District.

"The Borough comprises 1,867 acres of agricultural land, and forms an area some three miles in length, by a mean breadth of about 1 mile, having the small town of Bishop's Castle about the centre. The elevation varies from about 500 feet O.D. in the valley at the south-east end, to 1000 feet or more in the hill country forming the north-west end. The town lies on a hill side rising out of the valley, the main street rising steeply from about 600 to 700 feet O.D., and the houses are placed on either side of the street, and about the crest of the hill above it. The sub-soil is the Wenlock and Ludlow Beds of Upper Silurian age. The natural drainage is from north and west to south and east by small streams, the district lying upon the watershed of the Teme. In the town some small streamlets have been culverted about the foot of the hill, and are practically sewers. Outside the town proper, the area is very sparsely populated. The town is a market town."

Statistics.

The natural increase of the population during the year was 6. The population, estimated to the middle of 1903, is 1,360, and corrected for public institutions, is 1,340.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	20.1	.74	.74	2.2	.0	3.7	1.4	2.2	29	25.4
Averages for years 1897-1902	19.4	.72	..	..	..	..	..	..	100	25.9

Fifty-two per cent. of the deaths were of persons aged 65 or upwards.

The zymotic mortality was due to 1 death from enteric fever.

Infectious Disease.—Two cases of enteric fever and 1 of diphtheria were notified. One of the cases of enteric fever was imported and the other of obscure origin. Chicken-pox and influenza were prevalent early in the year and led to closure of the public elementary schools.

Hospital Isolation—no hospital—but a cottage has been secured and repaired to some extent.

Disinfection is carried out by the occupier or owner, the council supplying disinfectants.

House Accommodation—adequate in amount. The old cottages built of local limestone or sandstone are apt to be damp. No house was closed during the year. Space around houses is adequate and surroundings fairly clean, but without paving and with imperfect channelling in many instances.

Sewerage and Drainage—good natural drainage. The centre of the town and a considerable part of main street is properly sewered. There are lengths of stone road-water drains acting as sewers on the crest of the hill, and stone sewers at the bottom of the hill discharging on to meadow land. Complaints have been fewer during the last year, no doubt owing to the wet, cool season. “The plans for a scheme of disposal of the sewage appear to have made small progress during the year.”

Excrement Disposal—a number of water-closets in the town, but the majority are privies with underground vaults, mostly defective. With improved sewerage these might be converted to water-closets.

Scavenging is done by the occupiers.

Water Supply—filtered upland surface water. The houses unconnected are very few.

By-laws relating to slaughter-houses, common lodging-houses, prevention of nuisances, cleansing of privies, are in force, and regulations relating to dairies and cowsheds. There are 4 slaughter-houses and 1 common lodginghouse.

Factories and Workshops Act.—There are 35 workshops and 5 bakehouses on the register, all reported to be in a satisfactory or fair condition.

BRIDGNORTH (Urban).

Medical Officer of Health ... J. C. PADWICK, M.R.C.S., L.R.C.P.

<i>Area in Acres</i>	...	...	...	...	...	...	...	3,018
<i>Population</i>	<i>at 1901 Census</i>...				...	...	...	6,052
<i>Number of inhabited houses</i>	„	...	...	...	...	...	...	1,300
<i>Number of persons per house</i>	„	...	...	...	...	...	...	4.6

Statistics.

The natural increase of the population during the year was 56.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	* Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	12.7	1.1	0.0	.66	.72	1.9	2.9	.72	63	23.6
Averages for years 1893-1902	16.1	..	..	..	..	..	..	..	130	25.5

* The total death-rate is alone corrected for Institutions.

The zymotic death-rate was due to 5 deaths from measles and 2 from diarrhoea.

Infectious Disease.—One case of small-pox, 3 of diphtheria, 3 of erysipelas, 20 of scarlet fever, and 4 of enteric fever were notified. The case of small-pox occurred in a tramp in the Union workhouse. He was removed to the Isolation Hospital. Nineteen cases of scarlet fever were removed to the hospital. There was a widespread epidemic of measles in the latter part of the year affecting principally the High Town.

Sewage.—The septic tank system at Cantern has worked well.

Removal of Ashes.—The box system is not nearly in such general use as it should be.

Water Supply—plentiful. Samples from the river and the spring at Oldbury Wells have been analysed. Many of the drinking-water stands are still without guards.

Dairies and Cowsheds have been inspected and, with one exception, found in a sanitary condition.

Factories, workshops, lodginghouses, and slaughter-houses have been inspected and found sanitary.

BRIDGNORTH (Rural).

Medical Officer of Health

... J. C. PADWICK, M.R.C.S., L.R.C.P.

<i>Area in acres</i>	...	...	...	...	...	...	70,521
<i>Population</i>	<i>at 1901 Census...</i>						8,573
<i>Number of inhabited houses</i>	„	...	...	...	...	...	1,886
<i>Number of persons per house</i>	„	...	...	...	...	...	4.5

Statistics.

The natural increase of the population during the year was 105.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	15.0	.46	.0	.23	.35	1.3	1.7	1.1	122	25.7
Averages for years 1898-1902.	12.6	..	..	..	.	..	..	..	102	25.9

The zymotic rate was due to 2 deaths from scarlet fever, 1 from whooping cough, and 1 from diphtheria.

The infectious cases consisted of 22 of scarlet fever and 1 of diphtheria. For the isolation of one of the cases of scarlet fever—a pauper vagrant—a cottage was taken.

Brockton and Claverley schools were closed on account of scarlet fever.

The water supply throughout the district has been good. One public well has been built and several protected.

The dairies and cowsheds have been visited and found sanitary. Most of the schools have been visited and found to be in a healthy condition.

BURFORD (Rural).

Medical Officer of Health

... E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in acres</i>	...	...	...	...	...	...	7,798
<i>Population</i>	<i>at 1901 Census...</i>	...	...	...	...	...	1,233
<i>Number of inhabited houses</i>	,,	...	...	...	...	...	263
<i>Number of persons per house</i>	,,	...	...	...	...	...	4 6

General Character of the District.

The District is the smallest Rural District in the County. The houses are thinly scattered on the southern slope of the Clee Hill. The only institution is a Cottage Hospital, the Workhouse being in Tenbury.

Statistics.

The natural increase of the population during the year was 16.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	14·7	1 6	·0	4·1	·0	·0	·0	1·6	60	27·0
Averages for years 1897-1902	12·2	..	..	..	..	..	..	..	84	27·1

The infectious disease rate was due to 1 death from whooping cough and 1 from membranous croup.

Consumption caused 5 deaths, compared with 1 in the previous year.

Infectious Disease.—Seven cases of scarlet fever, 2 of diphtheria, and 2 of typhoid fever were notified. The typhoid fever cases were obscure.

There is no means of isolation nor of disinfection other than fumigation and cleansing.

House Accommodation is fairly good, but almost no building is taking place. A systematic house-to-house inspection is needed.

Water Supply is generally fairly satisfactory, although there is some scarcity in dry seasons. Analyses have been made of the waters from Nash, Burford, and Whitton school pumps. The latter only was found unsatisfactory, and the managers propose to find a new supply.

Workshops, etc.—There are only two small bakehouses on the register; also one dairy registered. The consideration of the water supplies at Boraston and The Knowle, with a view to making these supplies more accessible, is worthy of attention.

CHIRBURY (Rural).

Medical Officer of Health

... J. RAYNOR HATFIELD, L.R.C.P

Area in acres	...	...	...	...	...	27,045
Population	at 1901 Census...	...	...	...	...	3,539
Number of inhabited houses	,,	...	...	...	...	812
Number of persons per house	,,	...	...	...	...	4.3

Statistics.

The natural increase during the year was 37.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer		
1903	17.8	.28	.0	1.9	.56	1.1	3.6	.84	76.9	25.7
Averages for years 1898-1902	13.96	..	..	..	..	..	..	..	102.7	23.4

Nearly half the deaths were of persons over 65 years of age. The zymotic rate, .28, was due to one death from enteric fever.

There were seven deaths from phthisis and two from other tuberculous diseases. With respect to these Dr. Hatfield says: "I am firmly convinced that some of these lives might have been prolonged, if not even saved, could they have been sent off in the early stages to undergo special treatment in the open air sanatoria."

The cases of infectious disease notified were 6 of measles, 1 of enteric fever, 2 of scarlet fever, 4 of erysipelas, and 5 of phthisis.

No schools were closed on account of infectious disease. A properly equipped hospital for small-pox has been obtained in conjunction with two other authorities.

House Accommodation.—Defective, especially in the hilly district. One case of overcrowding dealt with in the year.

Drains.—Active steps are advised for remedying defects in drains where water supplies are endangered.

Excrement Disposal.—By privies principally; often in bad state of repair, too near houses and water supplies, and emptied at long intervals. These require urgent attention.

Workshops and Workplaces are satisfactory as regards ventilation, sanitation and construction.

Water Supplies.—Chirbury has a piped supply of good water. Worthen—from wells; quantity sufficient except in very dry weather. Wotherton—plentiful and good. Snailbeach—a sufficient supply of good water which, however, is private property. Brockton—unsatisfactory supply from wells.

General Remarks.

Dr. Hatfield once more urges the council to subscribe to some open-air sanatorium for the treatment of consumption.

The provision of a disinfectant, in connection with the hospital, is recommended.

CHURCH STRETTON (Urban).

Medical Officer of Health

... M. GEPP, L.R.C.P.E., D.P.H.

<i>Area in Acres</i>	...	...	...	...	...	...	982
<i>Population</i>	<i>at 1901 Census...</i>						816
<i>Number of inhabited houses</i>	„	...	...	...	...	...	147
<i>Number of persons per house</i>	„	...	...	...	...	...	5.5

Physical Features and General Character of the District.

“The District comprises the small ancient town of Church Stretton, lying in an open valley, running nearly north and south, 600 feet above sea level, together with the lower slopes of the bold hills which form the sides of this valley. The area is 982 acres. The subsoil of the valley is glacial drift, generally of dry and well-drained gravel, the hillsides to the west being of hard Longmyndian rock strata, of Pre-Cambrian age, those to the east being also of hard rock, of Ordovician age. The town lies on the crest of a watershed, the natural drainage of the valley being on the north towards the Severn, and on the south towards the Teme, the fall being gentle in either direction” . . . “the district was constituted in 1899.” “The climate, soil, and surface drainage are favourable to a high standard of health.”

Statistics.

The natural increase of the population during the year was 6. The population, estimated to the middle of 1903, is 1,100, and corrected for institutions, is 1,040.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	13.4	.96	.96	.0	.96	3.8	.0	.96	125	23.0
Averages for years 1900-1902	16.0	..	..	..	..	..	..	..	86	20.5

The zymotic death-rate was due to 1 death from diphtheria.

The infantile mortality, which is somewhat high, was due to 3 deaths, two shortly after birth.

Infectious Disease.—One case of diphtheria only was notified. It was associated with one or more cases of sore throat, and also with some defective drainage conditions.

Hospital Isolation.—Along with the Rural Council a site has been obtained on which temporary accommodation for small-pox might be erected. It is too inaccessible to serve as a site for a hospital for other infectious diseases. The council has so far been unable to secure a cottage in the district for this purpose.

Disinfection.—A “sprayer” for disinfecting rooms has been provided.

House Accommodation.—Some of the worst of the cottages have gone out of occupation recently; some of those inhabited are incapable of being made satisfactory. Considerable building of the villa class of residences is going on.

Air space is sufficient about the houses, but conditions of paving of back yards, of drainage, closet accommodation, and accumulation of manure and refuse require continued attention. The new sanitary inspector should base his routine work upon a house-to-house inspection.

Bye-laws for New Houses.—Bye-laws were framed three years ago, but are not yet sanctioned owing to a difference of opinion as to width of streets on the hill sides. Their early adoption is very important.

Sewerage and Drainage.—A scheme of sewerage and sewage disposal has been the subject of an inquiry. It is important that the scheme should be put in hand. Ventilation of the old sewers by shafts is recommended. Arrangements have been made for flushing the sewers; manholes have been reconstructed. Much remains to be done in ventilating and trapping house drains. Drainage regulations have been adopted and a complete drain testing apparatus provided.

Excrement Disposal—mostly by water-closets, but a few offensive privies. Some of these have been converted at the instance of the council.

Removal and Disposal of House Refuse—weekly removal by a contractor.

Water Supply ample—upland gravitation works belonging to the Church Stretton Water Company. The gathering grounds are uninhabited and uncultivated moorland.

By-laws and Regulations have been adopted during the year for slaughter-houses and dairies, cowsheds, and milkshops.

There are two slaughter-houses; registration of one has been refused and the other deferred for alterations. There are only three cowkeepers registered, most of the milk being supplied from the Rural District. The adoption of the Infectious Diseases (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890, have been considered.

Factories and Workshops Act.—There are 15 workshops and 4 bakehouses on the register. The bakehouses are reported as fairly good.

CHURCH STRETTON (Rural)

<i>Medical Officer of Health</i>				... M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in acres</i>	...	...	...	...	...	...	45,103
<i>Population</i>	<i>at 1901 Census...</i>			..	...	...	4,479
<i>Number of inhabited houses</i>	„	...	...	...	...	...	1,005
<i>Number of persons per house</i>	„	...	...	...	...	...	4.4

Physical Features and General Character of the District.

“The District is one of hills and Jales, highest across the centre from West to East, and sloping to the North and South. The northern part lies on the southern watershed of the Severn, the southern part on the northern watershed of the Teme, the various small streams arising on its uplands and running off through the valleys to the north or south affording good natural drainage. The elevation varies from 1700 feet at the summit of the Longmynd to some 400 feet at the northern and southern limits of the District. Three ranges of hills run through it from S.W. to N.E., the Longmynd range along the western side, the Caradoc in the middle, and the escarpment of Wenlock Edge runs through its eastern border. Between these ranges are fertile valleys with several villages and many isolated farms and cottages. The hillsides are largely cultivated, but are in part uninhabited moorlands. The sub-soil is that of some of the oldest Geological formations, Archæan on the west, Ordovician largely in the centre, and Silurian on the east, with a small and unimportant exposure of Coal Measures at the Northern end. These measures are not worked. The district is entirely rural and agricultural, with a sparse and scattered population.”

Statistics.

The natural increase of population during the year was 61. The population, estimated to the middle of 1903, was 4,450, and corrected for public institutions, 4,510.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	13·7	·0	·22	·66	·0	1·5	1·3	1·3	77	25·9
Averages for years 1897-1902	16·4	·64	..	..	..	..	..	..	95	22·4

Fifty-one per cent. of the deaths were of persons of 65 years and upwards.

Twenty-nine cases of scarlet fever, 5 of diphtheria, and 1 of enteric fever were notified. Eighteen of the cases of scarlet fever occurred in Wistanstow parish and the school was closed on two occasions. Cases in Easthope parish also appeared to be associated with school attendance. The diphtheria cases were isolated outbreaks. The case of enteric fever was obscure. Smethcote school was closed on account of measles.

Hospital Accommodation.—A small site, somewhat difficult of access, has been secured on which a tent hospital for small-pox can be erected.

Disinfection.—A spray apparatus for the use of the sanitary inspector has been provided.

House Accommodation—houses often small, damp, and badly constructed, needing frequent inspection. The sanitary inspector is engaged in a house-to-house inspection. No case of overcrowding came under notice. The census figures quoted in last year's report shewed considerable overcrowding. The houses have mostly sufficient space to deal with all solid and liquid refuse.

Sewerage and Drainage is mostly that of individual houses discharging on land or into ditches or water-courses. Small lengths of sewers have been laid at Picklescott and Wall-under-Heywood with great benefit. The necessity for some scheme of drainage for All Stretton and Little Stretton is foreshadowed.

Excrement Disposal.—Mostly privy closets with underground vaults—need careful inspection.

House Refuse.—Removed by householders.

Water Supply.—All *Stretton and Little Stretton* are supplied by local companies with upland water which, in both cases, would be benefited by filtration. *Leebotwood* is supplied from upland springs. *Wistanstow* is supplied in part by gravitation and in part from a pump-well. The hamlet of Woolstone has been provided with a standpipe connected with an upland spring supply. At *Longnor* some improvements have been made and it is suggested that further consideration be deferred until a fresh inspection and report has been made.

Common Lodging-houses.—Two in All Stretton—both inspected and re-measured during the year.

Dairies and Cowsheds.—5 persons registered as cowkeepers sending milk to a distance and 6 others who retail milk. There are no regulations in force.

Factories and Workshops.—There are 26 workshops on the register—all visited and reported as satisfactory; 3 bakehouses—sanitary condition fairly good.

CLEOBURY MORTIMER (Rural).

Medical Officer of Health ... E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in acres</i>	...	...	...	...	...	...	44,338
<i>Population</i>	<i>at 1901 Census...</i>						6,720
<i>Number of inhabited houses</i>	„	...	...	...	...	...	1,292
<i>Number of persons per house</i>	„	...	...	...	...	...	5.2

General Characters.

“The District is a fairly large rural area of 44,338 acres, with a population which I have estimated at 6,350. It is divided into 15 parishes and has a rateable value of about £40,000.
“The only outstanding loans for Sanitary purposes are those on Cleobury Parish.

“The population is thinly scattered over the District, the only parts at all approaching an Urban character being the small Town of Cleobury Mortimer, and to a still less degree Highley village—a few villages, together with farms and their labourers’ cottages, completing the list of habitations.
“The land is chiefly under cultivation, but at the western boundary the Clee Hill with Moor-land rises up, and at the eastern border the coal measures crop up.

“The Workhouse is at Cleobury, which has also a public cemetery. There are no other public institutions, nor any manufactories, in the District other than a few coal pits.

“The Infectious Diseases Prevention Act, and such sections of Part III. of the 1890 Amendment Act as are applicable to Rural Districts, are in force, and there are also By-laws relating to Nuisances and New Buildings throughout the District, and to Slaughter-houses in Cleobury Mortimer and Stottesden.”

Statistics.

The natural increase of population during the year was 120.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	10.5	.63	.0	.47	.31	2.2	.78	.94	64	29.4
Averages for years 1895-1902	14.8	.	..	..	..	..	..	..	96	28.0

The death-rate is the lowest on record.

The zymotic rate was due to 1 death from measles, 2 from whooping cough, and 1 from diarrhoea.

Infectious Disease.—Six cases of small-pox, 19 of scarlet fever, and 6 of erysipelas were notified. The outbreak of small-pox was in Cleobury Town, where a mild case was not recognised in the early stage. A second case developed in the house and four cases in the next house, where vaccination was refused. The cases were promptly removed to the hospital and precautions taken with regard to supervision of contacts and disinfection of premises and clothing. The value of the

hospital and of vaccination were clearly shown by this small outbreak. *Scarlet Fever* occurred in 3 small outbreaks at Highley, Kinlet, and Neen Savage. Disinfection of bedding and clothes is carried out very ineffectively. There was an outbreak of measles at Cleobury in June.

House Accommodation.—Fairly good—a little, but not much, overcrowding. New houses are being provided at Highley. Building by-laws are in force.

Drainage and Seavenage.—As regards the district generally there is little need of public drainage. A good deal of improvement in the sewerage of Cleobury has been effected and further improvements are contemplated. The removal of refuse in Cleobury is unsatisfactory and leads to many nuisances. Public scavenging is recommended. The drainage of Highley is now satisfactory, but the scavenging, now undertaken by the company, is not yet a complete success.

Water Supply.—*Cleobury*—although there is a public supply there are a number of houses without any clean water—action is urged. *Highley* supply is still unsatisfactory. The council is recommended to provide a public supply unless the village is otherwise provided for. With regard to other places in the district, the conditions are as in former reports.

Trades, etc.—The Factories Act has little application. Workshops are inspected and defects noted.

By-laws relating to slaughter-houses are in force. A public slaughter-house is recommended. There are few persons selling milk so as to bring them under the Dairies Order.

Nuisances.—Most of the grave nuisances are caused by the defective scavenging of Cleobury and Highley.

CLUN (Rural).

<i>Medical Officer of Health</i>				... M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in acres</i>	...	...	...	...	...	...	82,206
<i>Population</i>	<i>at 1901 Census</i>...			...	...	...	6,824
<i>Number of inhabited houses</i>	„	...	...	...	...	...	1,487
<i>Number of persons per house</i>	„	...	...	...	...	...	4.6

Physical Features and General Character of the District.

“The District comprises 82,206 acres, lying in the south-west of the County, and on the borders of Wales. It is essentially a hill country, much of the District lying at an elevation of 1,000 feet and upwards, especially on the northern and western parts. The centre and south-eastern part consists of open valleys from about 400 to over 600 feet in elevation, and broken and divided by small groups of hills. The main structure is, I imagine, that of an old elevated table land much dissected and weathered down.

“The Geological formation is much broken, the upper and lower Silurian and Ordovician measures being exposed in considerable areas, with less extensive exposures of the Old Red Sandstone, and of Cambrian and Pre-cambrian measures. The natural drainage is by various streams rising in the hill country to north and west, and forming the small rivers Onny and Clun, which leave the District through the valleys on the east and south-east to join the Teme.

“The District is sparsely populated, and agricultural in character, much of the hill country being cultivated or grazed.

“A small area in the north has in the past been worked for lead and other minerals, but these industries have much declined in recent years. The District contains the small town of Clun, and several villages of small size which are principally placed in the valleys and some smaller hamlets and many isolated houses scattered about the hill country.”

Statistics.

The natural increase of the population during the year was 91. The population, estimated to the middle of 1903, was 6,740, and when corrected for public institutions, 6,760.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	11·2	·14	·29	·59	·0	1·9	2·0	·74	50	23·8
Averages for years 1897-1902	15·8	·51	..	..	..	..	..	..	103	24·7

Over 50 per cent. of the deaths were of persons over 65 years of age.

The zymotic death-rate was due to one death from diphtheria.

Infectious Disease.—There were 6 cases of scarlet fever, 4 of diphtheria, 1 of continued fever and 3 of erysipelas notified. *Scarlet Fever.*—Four of the cases were contracted outside the district.

One school was closed on account of influenza.

Hospital Isolation.—A cottage near Clun has been secured and also the use of one retained by the Borough of Bishop's Castle.

Vaccination.—The percentage of certificates of successful vaccination has risen from 58.1 in 1893—1897 to 80.7 in 1900.

Disinfection of rooms is done by the occupiers, liquid disinfectants and sulphur candles being supplied.

House Accommodation.—Adequate in amount. Many houses are worn out, too small, badly lighted and ventilated, and damp. On one or two estates a few good new cottages are built from year to year. No house has been closed under the Housing Acts during the year. Statistics quoted last year show some cases of overcrowding which should be dealt with. A house-to-house inspection is being made.

Sewerage and Drainage—few or no public sewers except in the town of Clun. The sewerage of this town has been improved by providing a flush-tank and a ventilating shaft.

Excrement Disposal mostly by privies with underground vaults. There are a few instances of privies directly over water-courses causing dangerous pollution.

Water Supply.—There are a number of small schemes from upland springs. There are still some villages in which similar schemes might with advantage be adopted. *Clun* has an excellent water supply from upland springs. The supply of water from it to Clun Green is under consideration. *Newcastle* has a gravitation supply from upland springs, carried out by the council four years ago by loan. *Chapel Lawn* is supplied by a well sunk by the council in 1901. The standard of purity of water has not been altogether maintained, probably on account of the non-watertight condition of the upper part of the well. *Lydbury North* is partly supplied from upland springs, partly by private wells, and partly by a public well which is not properly protected. It is suggested that the houses using this well might with advantage be connected to the private piped supply. The hamlets of Lydbury Down, and of Leasty and Acton, have recently had pure upland spring-water laid on. *Linley* has a small gravitation supply laid on by the owner in 1902.

Dairies and Cowsheds, etc., are registered and looked after by the sanitary inspectors.

Factories and Workshops.—There are 73 workshops and 7 bakehouses on the register. Their general condition is reported as satisfactory.

DAWLEY (Urban).

Medical Officer of Health

...

M. GEPP, L.R.C.P.E., D.P.H.

Area in Acres	...	...	...	...	...	...	2,790
Population	at 1901 Census...	...	...	...	...	...	7,522
Number of inhabited houses	„	...	...	...	...	...	1,633
Number of persons per house	„	...	...	...	...	...	4.6

Physical Features and General Character of the District.

“The District lies at a considerable elevation upon the Shropshire Coalfield and table land, of which it forms one of the higher parts. Its surface falls irregularly from north and north-west to south and south-east, and from 670 feet, O.D., to some 400 feet roughly. The surface drainage is good owing to the steep fall of this part of the northern watershed of the Severn. The geological formation is the Carboniferous, the District being for the most part upon the Coal Measures, but with small exposures of the Millstone Grit in the south-western part.”

“As regards its general character, it may be described as a coal and iron-mining and iron-working district largely worked out. Coal mines long out of work and dismantled iron works are common features. At the present time it is chiefly the place of residence of an industrial community, many of whose members work in one or two large modern engineering or pottery works within the District, while large numbers work in mines, iron-works, and brick and tile works outside the District. The population fell off by upwards of 2,000 persons between 1881 and 1891, but increased again by upwards of 500 during the ten years 1891—1901. For an Urban community it is very scattered in character. There is a compact business centre with some continuous lengths of houses radiating for some distance from it along the main roads. The rest of the District is practically rural in character, with houses isolated or in groups of more or less number.”

Statistics.

The natural increase of the population during the year was 170. The population, estimated to the middle of 1903, is 7,620, and corrected for institutions, 7,650.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	16.1	.26	.0	1.3	.0	3.8	1.9	1.0	93	36.3
Averages for years 1897-1902.	15.7	.46	..	..	..	..	..	..	105	31.7

Attention is called to the high birth-rate and its probable connection with increased prosperity. The zymotic death-rate was due to 1 death from diphtheria and 1 from diarrhœa.

Infectious Disease.—9 cases of diphtheria, 3 of erysipelas and 3 of enteric fever were notified. The diphtheria cases were unconnected with one another, being well separated as regards house and locality. One case was probably due to an unrecognised case. Two gave a negative result on bacteriological examination. The origin of the cases of enteric fever was obscure.

Hospital Isolation.—For small-pox an iron and wood hospital has been erected by the Dawley and Shifnal Councils, on a site $4\frac{1}{2}$ acres in extent, at the Nedge. It is on brick foundations and consists of two wards, 8 beds each, accommodation for nurses, a mortuary, and washhouse. It is fenced by a 4—6" iron fence and is drained to a cesspit. A well has been sunk, and stoves have been fixed in the wards. A medical attendant has been appointed, arrangements made for cleaning, but no arrangements for obtaining nurses. Beds, etc., are to be obtained from the Shifnal work-house. There is no hospital for the more general infectious diseases.

Disinfection.—The council has provided a spraying apparatus for the use of the inspector, who personally attends to the disinfection of rooms. Disinfectants are also provided.

House Accommodation.—The majority of the houses are old and small, and often dilapidated and damp. There has, however, been considerable improvement of late years. The attention of the council is called to the last Housing Act and to the advantages of the council building houses for the working classes, if it can be done without loss.

Reference is made to the census returns, which show many cases of gross overcrowding. The sanitary inspector reports that many of these have been dealt with. Open space about houses is, as a rule, sufficient.

Cleanliness of surroundings needs much improvement. Frequent and systematic inspection, followed by the necessary proceedings, are essential. The inspector is doing good work in this direction.

Supervision of New Buildings—bye-laws are being considered.

Sewerage and Drainage.—The district is not sewered upon any system. The central and higher parts are drained to sewers or road-water drains; in other parts mostly into ditches, road-side channels, pools or on to gardens. The sewage finds its way into the Severn. Five lengths of sewers, varying from 20—160 yards in length, have been laid. The sewers depend on rainfall for flushing, and are unventilated. The house drains are roughly constructed.

Excrement Disposal—privies with underground vaults, scavenged mostly at long intervals by the occupiers. Defects due to want of system in scavenging have previously been pointed out.

Water Supply—from private pumps and wells, and from a dozen or more public wells and springs. The council is supporting a Bill now before Parliament for supplying this and neighbouring districts.

Dairies, Cowsheds and Milkshops.—There are 14 registered in the district, and 7 slaughter houses—all reported as satisfactory.

By-laws for new buildings, slaughter-houses, cleansing of privies, etc., and regulations for cowsheds, dairies, etc., are under consideration. By-laws relating to nuisances have been adopted.

Part III. of the Public Health Acts (Amendment) Act, 1889, was adopted in 1902.

Factories and Workshops Act.—There are 38 workshops and 14 bakehouses on the register; all reported as satisfactory.

DRAYTON (Rural).

<i>Medical Officer of Health</i>				A. MACQUEEN, M.D.			
<i>Area in Acres</i>	...	...	...	...	...	...	51,384
<i>Population</i>	<i>at 1901 Census...</i>			...	...	...	11,708
<i>Number of inhabited houses</i>	„	..	...	...	...	...	2,655
<i>Number of persons per house</i>	„	...	...	...	...	...	4.4

Physical Features.

The Rural Sanitary District of Drayton is situated in the great central plain of England at a general elevation of about 300 feet. The formation throughout is the New Red Sandstone, which attains its greatest elevation in England in the Hawkstone Hills near the western limit of the district. The land in general contour is level, well watered, and highly cultivated, and is mostly drained by the River Tern.

Statistics.

The natural increase of the population during the year was 118.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	15·4	·68	·43	·60	·77	1·6	1·0	1·0	127	25·5
Averages for years 1895-1902	16·6	..	..	..	..	..	..	..	133	25·8

The zymotic death-rate was due to 1 death from measles, 4 from whooping cough, 2 from diphtheria, and 1 from diarrhoea.

The infantile mortality, although somewhat lower than the average for the district, is again higher than that of rural England and Wales.

Infectious Disease.—3 cases of small-pox, 14 of diphtheria, 13 of scarlet fever, 9 of erysipelas, and 1 of enteric fever were notified. Three schools were closed on account of measles and whooping cough.

Hospital Accommodation.—A hospital has been erected at Prees Heath for small-pox by a combination of authorities; and a hospital for other infectious diseases at Little Drayton by the Rural Council in conjunction with Blore Heath Rural Council.

Vaccination for the year was satisfactory; only 1 conscientious objector.

Sewage Disposal.—The Ducat bacterial filter at Little Drayton is working satisfactorily.

Excrement Disposal—partly by water-closets. These should become general in Market Drayton.

Removal of House Refuse.—A public system is under consideration.

Water Supply.—Market Drayton is well supplied by the Water Company. A report by Dr. Macqueen on the water supply of the villages is under consideration.

House Accommodation.—Many houses have recently been built in Market Drayton. Building bye-laws are in force. Accommodation is adequate, but there is room for improvement as to fitness for habitation.

Lodging-houses, slaughter-houses, and bakehouses are inspected regularly. Dairies and cow-sheds are registered and their inspection is under consideration.

ELLESMERE (Urban).

Medical Officer of Health

... E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in Acres</i>	...	...	...	...	...	...	1,204
<i>Population</i>	<i>at 1901 Census...</i>						1,945
<i>Number of inhabited houses</i>	„	...	...	...	...	...	425
<i>Number of persons per house</i>	„	...	...	...	...	...	4.5

General Characters.

“The houses generally are good and the streets have paved side walks. The water supply is excellent, being derived from Lake Verniew. There are no manufactories and the town has been sewered.”

Statistics.

The natural increase of the population during the year was 16.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	13.2	.0	.0	1.0	.0	.5	.5	3.0	102	25.0
Averages for years 1899-1902	15.4	..	..	..	..	..	..	..	88	26.8

There were no deaths from the common infectious diseases. The death-rate from cancer was high—the figures are small—the rate may be partly due to the large proportion of aged people in the town.

Infectious Disease.—One case of puerperal fever was notified. There was an epidemic of measles of a mild type towards the end of the year, causing the schools to be closed.

Vaccination is efficiently performed.

House Accommodation—little or no slum property. A careful and systematic house-to-house inspection has been made. There is very little overcrowding.

Drainage and Scavenage.—The disposal of the sewage has been referred to an engineer for advice. Some improvements have been made in house drainage. The scavenging of the town should be put on a better basis. The council is advised to undertake the scavenging and cause weekly removal, suitable bye-laws being passed.

Water Supply from the Liverpool main—mostly laid on to the houses.

Workshops and Trades.—The workshops are registered and inspected regularly. Slaughter-houses and dairies are also inspected, and are satisfactory.

Bye-Laws relating to nuisances, new streets and buildings, slaughter-houses, lodging-houses, dating from 1859, are in force. They are not altogether suitable.

ELLESMERE (Rural).

Medical Officer of Health

... E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in acres</i>	...	...	...	...	...	...	51,117
<i>Population</i>	<i>at 1901 Census...</i>	...	...	...	...	...	7,911
<i>Number of inhabited houses</i>	,,	...	...	...	...	...	1,658
<i>Number of persons per house</i>	,,	...	...	...	...	...	4.7

Statistics.

The natural increase of the population during the year was 86.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	14.0	.38	.13	1.0	.63	1.5	1.2	1.2	87	23.1
Averages for years 1899-1902	14.3	..	..	..	..	..	..	..	116	25.7

The zymotic rate was due to 1 death from measles, 1 from whooping cough, and 1 from diarrhoea.

Phthisis was responsible for 8 deaths at the ages of 22, 26, 29, 34, 39, 44, 51, and 51—all wage-earning ages. The dangers in this connection from insufficiently ventilated bedrooms and careless spitting are mentioned, and attention is called to the great good that may be done by educating children in the elements of the laws of health.

Infectious Disease.—There were 8 cases of scarlet fever, 1 of enteric fever, and 1 of membranous croup notified. Seven of the scarlet fever cases were associated with the epidemic of the previous year. The case of enteric fever was contracted in the South of England. Of non-notifiable disease, there have been a large number of cases of measles in Ellesmere parish; a mild outbreak of mumps in Nesscliff; and a severe outbreak of Influenza at Criftins in June.

Dr. Whitakers says: "the whole question of the Public Health aspect of Public Elementary education is one well worthy of the consideration of the Education Authority."

The assistance of a steam disinfecter for bedding and clothing would be of value.

Housing Accommodation is satisfactory on the whole and there is little overcrowding.

Drainage and Scavenage.—Mostly a matter affecting individual occupiers. At Baschurch the pollution of soil by ground water from privies and slop water is considerable.

Water Supply.—This has not received the attention it deserves. Baschurch water supply has been dealt with fully in previous reports and Dr. Whitaker has nothing to add. Hadnall is badly in need of a better supply. The school and many houses here are without water. The council is advised to deal with each locality separately.

Workplaces.—A register is kept—the workshops have been inspected and, except for minor matters, found satisfactory.

Dairies, Cowsheds, and Milkshops.—A register is being prepared.

Nuisances.—Many nuisances—some of long standing—have been dealt with during the year

LUDLOW (Urban).

Medical Officer of Health C. B. CRANSTOUN, M.B.

<i>Area in Acres</i>	...	...	...	...	...	...	418
<i>Population</i>	<i>at 1901 Census, of extended area</i>						6,373
<i>Number of inhabited houses</i>	„			„	...	...	1,372
<i>Number of persons per house</i>	„			„	...	...	4.6

Character of District.

“Ludlow is a small agricultural town on the southern border of Shropshire, about 360 feet above sea level. It is situated on a large spur of limestone rock, which rises at the lower end of the Corve Valley. On the north, west and south sides, it is separated from the surrounding hills by the rivers Corve and Teme. On the east side the ground gradually rises till it becomes continuous with the Clee Hill range.”

Statistics.

The natural increase of population during the year was 63.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	16.6	1.1	.47	1.2	.15	1.5	2.0	.31	82	26.7
Averages for years 1893-1902	19.5	..	..	..	..	..	..	..	124	27.0

The zymotic death-rate was due to 2 deaths from small-pox, 1 from measles, and 4 from diarrhoea.

Infectious Disease.—5 cases of small-pox, 2 of erysipelas, 3 of scarlet fever, and 15 of varicella were notified. The first case was a drover from Tenbury. He went to the workhouse and was afterwards removed to the hospital. The second case occurred at Rock Lane, the 3rd and 4th cases occurred at the workhouse, and the 5th at Steventon Road. The hospital provided by the Town Council and the Rural Council has already proved most useful.

Vaccination.—There were seven conscientious objectors' certificates granted in 1903.

Under the heading of typhoid fever Dr. Cranstoun says: “There still remain a large number of defective middens which form a grave menace to public health.” He points out that it is the duty of the scavenging authority to disinfect middens into which typhoid discharges are thrown, and that efficient disinfection is quite impossible.

Isolation Hospital.—It is recommended that the Borough, by itself or in conjunction with the Rural District, should build a hospital for ordinary infectious diseases. Two beds per 1,000 of the population is suggested as a suitable size.

Dr. Cranstoun suggests provision of accommodation for advanced and also incipient cases of phthisis.

Water Supply has been good in quality and quantity.

Sewage System.—Dr. Cranstoun regrets (1) That the new sewer from Corve Street to Mill Street is most inefficiently constructed, irregular, and badly jointed; (2) That the sewage disposal works are a complete failure.

Sewer Ventilation.—Many rain-water pipes are still directly connected to the sewers. The disconnection of these is advised.

House Drainage.—The application of the water test to all new drains is advised.

Refuse Disposal.—The provision of a destructor is very strongly urged.

Dairies, Cowsheds, and Milkshops.—All have been inspected. The cowsheds are still capable of improvement.

Workshops.—There are 59 workshops on the register, including 7 bakehouses; there are also 10 workplaces. They are all reported as satisfactory.

Dr. Cranstoun says: "I desire to draw your attention to the following matters, which press for your early and careful consideration:—

- (a) The abolition of the ever-increasing and highly-dangerous accumulation of refuse in the Smithfield, and the provision of some efficient means of refuse disposal.
- (b) The extension of the water-carriage system wherever possible, instead of the present middens and privies.
- (c) The strict enforcement of the laws dealing with the dwellings of the poor, and the improvement of all such dwellings where necessary.
- (d) The provision of a General Isolation Hospital for the Borough and surrounding neighbourhood.
- (e) The paving and improvement of the sanitary condition of back courts, yards, and alleys.
- (f) The control of the numerous vagrant dogs which roam our streets and often defile our pavements in a most filthy and disgusting fashion.
- (g) The completion of the Sewerage Scheme in the newly added area.
- (h) The dirty and unsanitary condition of Steventon New Road.
- (i) The bad and filthy condition of the road surface in Friars Alley."

LUDLOW (Rural).

<i>Medical Officer of Health</i>	...	G. H. SHACKEL, L.R.C.P.	
<i>Area in acres</i>	...	...	66,350
<i>Population at 1901 Census</i>	...	...	9,585
<i>Number of inhabited houses</i>	..	...	2,003
<i>Number of persons per house</i>	..	...	4.7

Statistics.

The natural increase of the population during the year was 183.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	10·4	·84	·21	·42	·0	1·2	·94	·84	48·1	28·3
1902	12·06	..	..	..	..	..	..	..	87·5	25·0

The general death-rate and infantile mortality was lower than any recorded during the last 20 years.

The zymotic death-rate was due to 1 death from small-pox, 2 from measles, 2 from whooping cough, 1 from enteric fever, and 2 from diarrhœa.

Infectious Disease.—26 cases of chicken-pox, 27 of scarlet fever, 2 of membranous croup, 3 of enteric fever, were notified. Notification of chicken-pox was compulsory for six months. Twelve of the cases of scarlet fever occurred in Munslow parish in May and June, and seven in Stokesay and Stanton Lacy. Unrecognised cases were active in the spread of the disease. One of the cases of enteric fever was imported. Three cases of small-pox were removed from the borough to the isolation hospital. Measles was prevalent in the Munslow district and whooping cough in the Clee Hill and Bitterley districts.

Water Supply.—Craven Arms public supply has been extended to 12 more cottages, and Bitterley school has been provided with water.

House Accommodation.—One house has been condemned as unfit for habitation.

The Registered Cowsheds have been inspected and found satisfactory.

Factory and Workshops Act.—The workshops have been inspected and the requirements of the Act carried out. Some of the older bakehouses are not altogether satisfactory.

Bye-laws.—Bye-laws for new streets and buildings, nuisances and slaughter-houses have been adopted.

NEWPORT (Urban).

<i>Medical Officer of Health</i>	...	M. GEPP, L.R.C.P.E., D.P.H.	
<i>Area in Acres</i>	...	...	768
<i>Population at 1901 Census</i>	...	...	3,241
<i>Number of inhabited houses</i>	..	...	720
<i>Number of persons per house</i>	..	...	4·5

Physical Features and General Character of the District.

"The District comprises 759 acres, lying on the Eastern border of the County, very level in contour, the general elevation being some 250 feet. The natural drainage is to the West, but there is no stream of any importance. The sub-soil is the Bunter beds of the New Red Sandstone. The District includes the town of Newport, consisting chiefly of one long and wide street, about a mile in length, running North and South, with several narrow lanes and passages and courts running at right angles from it. This part of the town is compact and old, and there is about the centre some crowding of houses upon area. To East and West is open country with extensions of more modern building along the roads converging on the town, and some outlying collections of houses. Newport is a market and residential town."

Statistics.

The natural increase of the population during the year was 17. The population is estimated, at the middle of 1903, as 3,219, and corrected for institutions, as 3,150.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	14.9	.31	.0	1.2	.31	2.2	.63	.63	71	22.2
Averages for years 1898-1902	16.3	.69	..	..	..	..	..	..	112	25.7

The zymotic death-rate was due to 1 death from diphtheria.

Infectious Disease.—10 cases of scarlet fever, 4 of diphtheria, and 2 of erysipelas were notified. 5 cases of scarlet fever occurred in one house. 6 of the cases were removed to the hospital. 2 of the cases of diphtheria occurred in one house at an interval of 5 weeks, the first case being fatal. Insanitary conditions were found in two out of the three houses.

Hospital Isolation.—The council has a small hospital consisting of a cottage and a block of two wards (4 beds). For small-pox it is suggested that the advisability of forming a joint hospital district with two rural districts be considered, in order to obtain a permanent site and either erect a small permanent hospital or prepare the site and erect a cottage.

Disinfection.—The inspector superintends the fumigation, with sulphur, of infected rooms. The provision of a spraying apparatus is recommended.

House Accommodation—adequate in amount. There are a good many worn-out and "some are very small and do not reach a satisfactory standard of fitness for healthy habitation." There is not much evidence of serious overcrowding.

Cleanliness of Surroundings—there is still room for much improvement. The recommendation for a house-to-house inspection is repeated.

New Buildings.—Bye-laws are in force—22 plans were submitted.

Sewerage and Drainage—sewerage work is practically complete. The filter beds are being filled with screened cinders. The drains are being connected to the sewers, intercepting traps placed, and, where faulty, the drains will be reconstructed according to the drainage regulations.

Excrement Disposal—about one-fourth of the houses have water-closets; the remainder have privies with underground vaults. The conversion of the old privies should be pushed on more rapidly. Attention is called to some very insanitary privies at Station Terrace and Springfield Terrace, and action is advised.

Seavenging is now undertaken by the council with their own staff of men.

Water Supply—from 3 public wells sunk and bored in the sandstone to the south of the district and laid on to the houses and to standpipes. The water is chemically satisfactory; the hardness is 16—17 degrees. Thirty-seven houses have been connected during the year.

Slaughter-houses—7 on the register—satisfactory.

Dairies and Cowsheds—12 registered—periodically inspected and kept in accordance with regulations.

Common Lodging-houses—4—clean, but in some respects not in accordance with bye-laws.

Factories and Workshops Act.—There are 77 workshops and 7 bakehouses on the register—all reported as satisfactory.

NEWPORT (Rural).

Medical Officer of Health

... M. GEPP, L.R.C.P.E., D.P.H.

Area in acres	...	...	...	...	...	...	22,807
Population	at 1901 Census	...	...	...	...	...	6,033
Number of inhabited houses	„	...	...	...	...	...	1,284
Number of persons per house	„	...	...	...	...	...	4.7

Physical Features and General Character of District.

“ The District comprises 22,945 acres, lying upon the Eastern border of the County. The Northern and larger part is on the Shropshire plain, varying in elevation from 150 to 300 feet, O.D., and lying on the Bunter Beds of the New Red Sandstone. This part is entirely agricultural and contains the villages of Edgmond and Tibberton with some smaller ones. The Southern and much smaller part rises rather rapidly, reaching some 500 feet elevation at the extreme border on the South and comprising the apex of the extensive triangular Coalfield which has its base some miles to the South. This part lies upon the Coal Measures, with a small intrusive outcrop of much broken and older strata forming Lilleshall Hill, on and around which is the village of Lilleshall. The natural drainage is by various small streams from the South and East flowing towards the West, and falling into the Tern River outside the District. There are several collieries and some engineering and other ironworks in the Southern part, and the population there is relatively denser, but much scattered in groups of dwellings, and for the most part industrial.”

Statistics.

The natural increase of the population during the year was 75. The population, estimated to the middle of 1903, was 6,076, and when corrected for public institutions, 6,100.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	14.9	.33	.33	.82	.16	2.6	1.4	1.3	83	25.6
Averages for years 1897-1902.	16.1	.94	..	..	..	..	..	..	133	26.9

The zymotic death-rate was due to 1 death from diphtheria and 1 from enteric fever.

Infectious Disease.—Nine cases of scarlet fever, 4 of diphtheria, 2 of enteric fever, and 4 of erysipelas were notified.

Hospital Isolation.—The council has, along with two other authorities, obtained a site for erection of a tent hospital, if necessary, for the prevention of small-pox. It is suggested that a permanent site be obtained, fenced, drained and provided with water. A small house to act as caretaker's house and administrative block would be of great advantage.

Disinfection is done by the householder, the council providing disinfectants. The householder has to state that fumigation and cleansing has been carried out before children are allowed to go back to school. Spraying is recommended.

House Accommodation.—In the agricultural areas the houses are fairly satisfactory on the whole. The accommodation in the industrial area is much less satisfactory, although improvements have been made and are still going on. Larger windows have been put in, and made to open, eaves troughing and spouting have been fixed, roofs have been ceiled, and back windows put in. The Lilleshall Barracks have in this way been greatly improved. Some improvement has been made in the Donnington Wood Barracks and in the two-storied houses of this district, but the need for much further improvement is pointed out. Some cases of overcrowding have been dealt with by the sanitary inspector. The question of overcrowding in small tenements should be kept in view.

A recommendation of a house-to-house inspection has been made year by year, but the council has decided that this routine inspection is not necessary.

Sewerage and Drainage.—There are few recognised public sewers. Individual houses are usually drained without nuisance. *Donnington Wood* appears to be drained into old culverts which probably find their way into water-courses. *Edgmond* sewage discharges on to land in three or four places. The sewerage has been improved, but the sewers are unventilated and depend on rainfall for flushing.

Excrement Disposal.—With few exceptions the system is privies with underground vaults, often offensive and scavenged at long intervals.

Disposal of House Refuse—by occupiers.

Water Supply.—*Church Aston* and *Chetwynd Aston* are supplied from the Urban Council works. *Tibberton* has a supply to standpipes. At *Edgmond* several houses have been supplied from a small reservoir and well with wind engine. *Lilleshall* and *Donnington Wood* will probably be supplied in the near future.

Factories and Workshops.—There are 18 workshops and 2 bakehouses on the register—all reported as satisfactory.

OAKENGATES (Urban.)

Medical Officer of Health ... E. T. WHITAKER, M.B., B.S.C., D.P.H.

<i>Area in Acres</i>	...	...	...	...	...	...	2,327
<i>Population</i>	<i>at 1901 Census</i>	...	...	...	...	...	10,906
<i>Number of inhabited houses</i>	,	...	...	...	...	...	2,187
<i>Number of persons per house</i>	,	...	...	...	...	...	4.9

General Characters of the District.

“The District was formed in the early part of 1898 by Order under the County Council, and included parts of three rural districts :—Wellington, Shifnal, and Newport. It had been found that there was no real possibility of efficiently administering the area so long as it remained under so many different authorities, and the concentration of population, water supply, sewage and refuse disposal and housing were such as called for energetic and comprehensive treatment under urban powers.

“As now constituted it covers an area of some 2,327 acres, and includes several more densely populated localities with some open country with scattered dwellings.

“The ground surface varies considerably, the portion of the North and West being part of the Shropshire plain overlying the Bunter Beds and covered with drift, the elevation sloping from about 200, O.D., in the north to nearly 400 towards the South-East, where the Coal Measures rise up, and gradients rapidly increase to nearly 600 O.D. It is in the centre of an important coal and iron industry.

“The District thus includes a large number of mines both exhausted and actively working, coal and iron stone being raised, and a number of ironworks and engineering shops. There are a few good houses and a large number of cottages more or less irregularly distributed and of low rateable value.

“From a Sanitary point of view the outstanding features are the lack of a pure and abundant supply of water and means for draining the liquid filth.”

Statistics.

The natural increase of the population during the year was 227.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	17·7	·72	·18	·63	·90	2·1	1·9	1·2	132	37·3
Averages for years 1898-1902	16·2	..	..	..	..	..	..	..	131	31·9

The death-rate was the highest, with one exception, since the formation of the district.

The zymotic death-rate was due to 6 deaths from diphtheria and 2 from diarrhœa.

From an analysis of the deaths of infants under one year Dr. Whitaker says: "it will be seen that faulty nutrition and infectious disease caused 19 deaths . . ."

The importance of educating children in the elements of hygiene is pointed out and urged upon the attention of the County Council.

Infectious Disease.—16 cases of diphtheria, 5 of erysipelas, 8 of scarlet fever, and 9 of typhoid fever were notified. In no single house did *diphtheria* spread to any of the other inmates. School attendance apparently had no influence. The cases were attributed to imperfect scavenging. The abolition of the large "dumping ground" and the substitution of covered receptacles or boxes, frequently emptied, is recommended. The 9 cases of *typhoid fever* occurred in 8 houses. Four of them were verified by bacteriological examination. "The provision of sanitary pails for typhoid cases does not appear to be made use of owing to the inadequacy of the staff . . ."

"Outbreaks of infectious disease are visited and inquired into but owing apparently to the large amount of work thrown upon your inspector there is sometimes too long a period between the date of notification and his first visit. For the same reason little use is made of the spray disinfectors. You are still without means of disinfecting such articles as bedding and outer garments."

Dr. Whitaker does not regard the hospital accommodation for small-pox as at all adequate.

Housing Accommodation.—There are a number of houses unfit for habitation and a number of others overcrowded, which it is difficult to deal with on account of a lack of better houses at a low rental. Attention is called to the Housing Act of last year under which houses can be provided for a lower rental. House-to-house inspection of a large number of houses has been made by the assistant inspector.

Drainage and Scavenage.—A commencement has been made of the scheme of sewerage approved by the Local Government Board. The collection of house refuse should be put on a better footing.

Water Supply.—The Bill now before Parliament is spoken of as regards Oakengates as the best that has been suggested.

Workshops.—A register is kept but not fully entered up, nor is the work properly carried out. There are 11 bakehouses—mostly satisfactory.

Slaughter-houses.—The licensing should be annual and each should be reported on before renewed. Several are defective.

Dairies and cowsheds have not been properly inspected.

Nuisances.—A knacker's yard, certified as a nuisance 18 months ago, has remained in the same condition.

OSWESTRY (Urban).

Medical Officer of Health

... R. DE LA P. BERESFORD, B.A., M.D.

<i>Area in Acres</i>	...	...	...	...	...	1,887
<i>Population</i>	<i>at 1901 Census...</i>	...	...	...	...	9,579
<i>Number of inhabited houses</i>	,,	...	...	...	...	2,083
<i>Number of persons per house</i>	,,	...	...	...	...	4.6

Statistics.

The natural increase of the population during the year was 106.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	19.6	.61	.10	1.0	1.4	3.3	2.5	1.0	120	28.8
Averages for years 1893-1902	17.3	..	..	..	..	..	..	..	133	27.0

The death-rate, 19.6, is the highest but one during the last 11 years.

A considerable number of deaths are attributed indirectly to influenza.

The zymotic death-rate was due to 5 deaths from whooping cough and one from diarrhœa.

In January a case of small-pox occurred and was removed to the Workhouse Infectious Hospital. Precautions were taken and there was no extension. The infection was either from Welshpool or from a previous case in Oswestry.

A suitable piece of land has been purchased on which a permanent or temporary hospital can be erected.

The water supply has been good and abundant. Steps are being taken to increase the storage and gain more complete control of the gatheringground by purchasing a farm.

The lodging-houses, bakehouses, and slaughter-houses have been well looked after.

There are 93 workshops and 16 bakehouses on the register. So far as they have been visited they have been found to be in a very fair condition.

OSWESTRY (Rural).

Medical Officer of Health

... R. DE LA P. BERESFORD, B.A., M.D.

<i>Area in acres</i>	...	...	...	...	...	60,366
<i>Population</i>	<i>at 1901 Census...</i>	...	...	...	...	14,727
<i>Number of inhabited houses</i>	,,	...	...	...	...	3,220
<i>Number of persons per house</i>	,,	...	...	...	...	4.6

Statistics.

The natural increase of population during the year was 148.

Period.	Death rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	15.5	.40	.40	.80	.74	1.9	1.7	1.2	97.4	26.2
Averages for years 1895-1902	15.2	..	..	..	..	..	..	..	99.4	27.6

The zymotic death-rate was due to 2 deaths from measles, 3 from whooping cough, and 1 from diphtheria.

Infectious Diseases.—Three cases of small-pox, 8 of diphtheria, 4 of erysipelas, 9 of scarlet fever, 1 of enteric fever, 2 of puerperal fever, and 3 of chicken-pox were notified. An outbreak of diphtheria at Porthywaen was effectually dealt with by school closure and other measures. This district needs a water supply badly, the principal supply being a dip-well liable to contamination. The council has already attempted to deal with this case, but have met with many difficulties.

Whooping cough, measles, influenza, and other forms of sickness amongst children have been very prevalent. Dr. Beresford expresses the opinion that children under 5 years of age should not attend school, and gives several good reasons for this opinion.

In the early part of the year small-pox was introduced into the district by tramps. Three cases were treated at the workhouse infectious hospital. One of the inmates of the workhouse was attacked, but the origin of this case was obscure. The nurses and contacts were re-vaccinated, but there was no general re-vaccination of the inmates of the workhouse.

Water Supply.—The Pant supply is now under the direction of the council. The other water supplies are working satisfactorily. It is hoped that the Gobowen water scheme will soon be commenced.

Scavenging.—Dr. Beresford hopes to see the scheme for scavenging the larger villages carried out.

Housing Accommodation.—There are at least three insanitary houses which should be closed if not extensively repaired.

The lodginghouses are kept clean.

Factories and Workshops.—The condition of the workshops is, on the whole, good. There are 55 on the register.

SHIFNAL (Rural).

Medical Officer of Health

... E. T. WHITAKER, M.B., B.SC., D.P.H.

Area in acres	...	...	...	...	...	...	4,538 ⁰
Population	at 1901 Census..	...	...	...	...	...	8,844
Number of inhabited houses	,,	...	...	...	...	...	1,918
Number of persons per house	,,	...	...	...	...	...	4.6

The civil parishes of Blymhill and Weston--under-Lizard in the Administrative County of Stafford, administered by the Shifnal Rural District Council and containing 5,462 acres, 184 inhabited houses, and a population of 823, are included in the above figures.

General Characters.

"Your Rural District has an area of 45,380 acres. Two of the parishes administered by you are in the Geographical County of Stafford, as is also a portion of a third. The population is small and for the most part thinly scattered, with an average density of only one person per five acres of land. The District comprises sixteen parishes, all of them, excluding a portion of Shifnal and Albrighton, being strictly rural. The District is agricultural, with some large parks, and overlies a succession of New Red Sandstone series, coal cropping up at the extreme western boundary.

"The small town of Shifnal has, for various purposes, been made a contributory area, and is the market town for the surrounding agricultural area. Owing to the recent provision of a modern sewerage system and an abundant supply of excellent water, it now presents many attractions as a residential locality.

"The Infectious Diseases (Prevention) Act and parts of the 1890 Amendment (Public Health) Act are in force, and Model Regulations for Cowsheds and Dairies, together with Bye-laws relating to New Buildings and Nuisances have been adopted.

"The only public institutions are the Workhouse, a good Cottage Hospital, and a new Isolation Hospital for Small-pox."

Statistics.

The natural increase of the population during the year was 74.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	14.3	.22	.11	1.1	.56	1.7	1.1	.67	121	22.3
1898 to 1902	14.5	..	..	..	..	..	.	..	105	23.7

Thirty-three per cent. of the deaths were of persons of seventy years or upwards.

The zymotic death-rate was due to 2 deaths from measles and one from diarrhoea. Education of children in the elements of hygiene is pointed out as the most hopeful way of diminishing phthisis.

Infectious Disease.—Thirty-one cases of scarlet fever, one of small-pox, one of diphtheria, and one of erysipelas were notified. The cases of scarlet fever were grouped in small outbreaks, mostly affecting the parishes of Badger and Beckbury and the town of Shifnal. In several outbreaks second and third cases occurred owing to lack of isolation. The case of diphtheria was imported.

In March a case of small-pox occurred in an inmate of the workhouse. The patient had been an inmate for several months and had not been off the premises. The only forthcoming explanation is that she had washed clothes from the tramp ward. There was no suitable isolation accommodation. Vaccination, after some delay, was thoroughly performed and no fresh cases arose.

Hospital Accommodation.—In consequence of the case of small-pox the council secured a site and erected a small wood and iron hospital.

Housing Accommodation.—Fairly good as regards number and structure. There are some old houses that it will soon be impossible to keep in habitable repair. Action was taken in one or two instances under the Housing of the Working Classes Act.

Drainage and Scavenage.—For the most part a matter for individual householders. Slop water and privy contents should be disposed of on the garden, and the proper disposal should be taught in schools. Shifnal town system of sewers is working well. Further steps should be taken with regard to Albrighton drainage. Scavenage is as previously reported.

Water Supply.—In Shifnal town progress is being made in connecting the houses to the mains. Albrighton has had a good supply for many years. Kemberton has the same supply as the town of Shifnal. Dr. Whitaker emphasises the necessity for securing a good water supply to new houses.

Workshops.—A register is kept and the places are visited. Slaughter-houses, bakehouses, and dairies have been visited and found fairly satisfactory. A bakehouse has been closed. A second lodginghouse has been registered.

By-laws relating to slaughter-houses and lodging-houses are now in force.

SHREWSBURY (Urban).

<i>Medical Officer of Health</i>			...	M. GEPP, L.R.C.P.E., D.P.H.		
<i>Area in Acres</i>	...	...	.....	...	...	3,525
<i>Population</i>	<i>at 1901 Census</i>...			...	...	28,395
<i>Number of inhabited houses</i>	„	...	...	...	...	6,065
<i>Number of persons per house</i>	„	...	...	...	...	4.6

Physical Features of the District.

“The Borough comprises 3,525 acres, forming an area nearly equal in length and breadth, and roughly quadrangular. This area lies in the Valley of the Severn, which is here wide and open, having a gradual fall to the river and varying in elevation from 150 feet to 260 feet above sea level. The geological formation is varied, the Permian Red Sandstone occurring in a band across the centre, with the Bunter beds of the New Red Sandstone to the North, and the Coal measures on the South. The actual subsoil is, however, mainly river drift of varying and generally considerable thickness, in places stiff clay, but generally sandy and dry in the upper part, with clay underlying at greater or less depth. The contour offers good natural drainage to the Severn, which owing to its devious course flows over a length of some eight miles either through, or along the borders of the District. The actual length of its flow through the District is about three miles.”

“The climate of Shrewsbury is mild and healthy. Though not bracing and having the characteristics of a valley climate, yet the open nature of the valley and the varied contours of the town, together with the course and movement of the Severn through and around the town prevent stagnation of the air, and the prevailing South-West wind has free course, keeping the air clear and fresh, and river fogs are neither common nor dense * * * *

“The old town of Shrewsbury stands on two hills, of generally moderate ascent, but steep in parts, and nearly surrounded by the river, which here forms a horseshoe curve some two miles round with a width across the neck of some 400 yards. This enclosed part is for the most part densely built upon. Of the various suburbs across the river, Frankwell forms an old settlement on the North-West with modern extensions chiefly of villa residences, along the main roads radiating from it. Kingsland is a modern residential suburb to the South-West, Colcham an old settlement to the South-East with Belle Vue, a modern extension, adjoining; and Abbey Foregate, old near the river and modern and residential further out, lies to the east. To the North-East, on the low-lying ground outside the neck of the peninsula, is the considerable district of Castle Fields, built over for the most part some forty to fifty years ago, and forming an artisan residential quarter.”

Statistics.

The natural increase of the population during the year was 282. The population is estimated, at the middle of 1903, as 28,766, and, corrected for institutions, 29,026.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	15·1	·58	·55	1·5	·48	2·4	1·5	·89	116	25·4
Averages for years 1893-1902	18·2	..	..	..	..	..	..	..	142	26·5

The general death-rate is the lowest on record.

Apparently 31 of the infantile deaths were due to errors of diet and management.

The zymotic death-rate was due to 3 deaths from measles, 3 from whooping cough, 2 from diphtheria, 2 from typhoid fever and 7 from diarrhœa.

Infectious Disease.—2 cases* of small-pox, 20 of scarlet fever, 11 of diphtheria, 8 of enteric fever, and 22 of erysipelas were notified. There has been a steady decline for some years of scarlet fever, enteric fever, and diphtheria. Of the cases of enteric fever 2 may have been imported; in one there was a history of drinking river water, and in another of eating shell fish.

* Not including those in the Prison.

Small-pox.—Of the two notified cases, one was introduced from a manufacturing town and the other was not definitely traced, but was possibly from the prison. Besides these, there was a considerable outbreak at the prison. Two cases were discharged from the prison whilst infectious and had to be removed to the isolation hospital. On representation being made the remaining cases were persuaded to remain until free from infection. Apart from these cases the town was exposed to infection by a man who tramped from Wales and stayed a night in a common lodging-house in the town whilst suffering from small-pox. The next day he went to the Atcham Workhouse, where he was isolated. There were one or two other occasions on which persons probably infectious visited the town. Contacts were dealt with as far as possible and no cases resulted.

Erysipelas has been more prevalent than usual. The possibility of the infection being carried by river water used for washing is mentioned.

Measles was epidemic in the autumn. The precautions taken were closure of the elementary schools at an early date.

Chicken-pox was made notifiable for 6 months—78 cases were notified.

Phthisis caused 44 deaths, and other forms of tuberculosis, 15. Education of the public is strongly advised to prevent this disease; also voluntary notification and disinfection of infected houses. Placards are being issued to occupiers of workshops and public-houses pointing out the dangers of spitting on floors, etc.

Diarrhœa—no death occurred during the summer quarter.

Hospital Isolation.—The borough has a hospital of six beds for small-pox or cholera. Four small-pox cases were admitted during the year. The accommodation was increased by 4 beds by purchasing a Berthon Hospital Hut.

There is no hospital for other diseases.

Disinfection.—Dr. Gepp reasserts his conviction that a town of the size of Shrewsbury should have a disinfecting station. Disinfection of rooms is done by the sanitary inspector by spraying. Disinfectants are supplied.

Vaccination (primary) is carried out very well.

House Accommodation—adequate in amount. Whilst it is exceptional to find a house that can be legally closed there are a large number that do not afford wholesome conditions of habitation. Frequent inspection and constant attention to details are necessary. The census returns show that there are a number of cases of overcrowding requiring careful investigation.

Supervision of New Buildings.—Under bye-laws adopted in 1877 plans have to be submitted; 82 plans of dwelling-houses were submitted during the year.

Systematic House-to-House Inspection.—During the period of rather more than three years in which a house-to-house inspection has been going on, 3,450 houses out of 6,092 have been inspected—practically all the smaller class of houses with the exception of Castle Foregate and Ditherington.

Sewerage and Drainage.—There are many culverts that should be replaced by piped sewers, and many piped sewers that should be made watertight. It is recommended that all available information should be obtained and a scheme of reform drawn up and gradually carried out.

Ventilation of Sewers.—25 ventilating shafts, 25—35 feet high, have been erected during the year. The erection of more shafts is recommended as occasion requires.

Flushing of sewers is regularly and periodically attended to.

Disposal of Sewage.—The sewage is now pumped to Monkmoor, treated in tanks, and irrigated over the farm. Excrement disposal by water-closets.

Removal and Disposal of House Refuse—weekly collection—the refuse being tipped on the low-lying land. The provision of a destructor has been considered, but no decision arrived at. Covered carts for collection are recommended.

Water Supply—the well-known dual system. The report of the engineer called in to report upon the three schemes relating to the Pulverbatch gathering ground has been received and is altogether favourable to one of these schemes. Dr. Gepp says “I need only repeat my strong conviction that an upland scheme will prove to be the best solution of the water question and a safe investment for the borough.”

Slaughter-houses—22 on the register, 15 being in Roushill. Complaints of nuisances seem to be less common, some improvement having taken place. Public slaughter-houses are recommended for the prevention of nuisances and to facilitate meat inspection.

Dairies, Cowsheds, and Milkshops.—120 persons are registered. The premises are visited and inspected.

Common Lodging-houses—5 in number. The adoption of model by-laws is advised.

Factory and Workshops Act.—The completion of the register will take some time. There are 219 workshops already on the register, mostly reported as satisfactory. There are 39 bakehouses, fair on the whole and improving. One underground bakehouse is to be disused and one has been certified.

Pig-keeping.—A new by-law prohibiting the keeping of pigs within 100 feet of a dwelling-house is under consideration.

Sale of Food and Drugs Act.—27 samples were taken and proceedings were taken in one case.

TEME (Rural).

Medical Officer of Health

... JOHN H. K. GRIFFITHS, M.B.

<i>Area in acres</i>	...	...	...	...	...	...	23,091
<i>Population</i>	<i>at 1901 Census</i>	...	...	...	...	...	1,846
<i>Number of inhabited houses</i>	,,	...	...	...	...	...	388
<i>Number of persons per house</i>	,,	...	...	...	...	...	4.7

Statistics.

The natural increase during the year was 22.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	14.6	.54	.54	1.62	0.0	1.62	1.62	0.0	43.4	24.9
1899 to 1902	15.2	..	..	..	..	..	.	..	..	25.2

There were no deaths from the common infectious diseases and only 1 case was reported.

The infantile mortality was only 43, very low compared with previous years.

Housing Conditions.—Dr. Griffiths has reported on the condition of the houses in the parish of Stowe, and the sanitary defects found have been remedied. He says that there is still much to be done throughout the district, “many of the houses, more especially those of the working class, are in a deplorable condition; the roofs are often not watertight, walls damp, floors rotten and broken”

Water Supply.—Dr. Griffiths understands that an arrangement has been made with Knighton for supplying the Kinsley Road houses with the town water.

The workshops are reported by the inspector to be in good sanitary condition. There are no dairies or milkshops in the district.

WELLINGTON (Urban.)

Medical Officer of Health

... E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in Acres</i>	(before extension)	...	381
<i>Population</i>	<i>at 1901 Census</i>	,,	6,283
<i>Number of inhabited houses</i>	,,	...	1,327
<i>Number of persons per house</i>	,,	..	4.7

General Character of the District.

"Wellington is the market town of a large agricultural area, and has also in its vicinity important mining and manufacturing districts. Its area, recently extended, is now 684 acres, and I have estimated the population at 7,200. The town lies chiefly on the lower layers of the New Red Sandstone, the sub-soil being clay and gravel drift. The surface level of the ground varies a good deal, and drainage gradients are usually sufficient.

"The water supply is under the control of the Local Authority, and is obtained from gathering grounds on the Wrekin, the water being impounded in a series of reservoirs, and distributed by gravitation.

"The sewers of the town are new, and the sewage is taken to an outfall a considerable distance beyond the urban boundaries.

"The roads are all under the management of the Urban Council, and much good work has been done in providing proper footways, and drainage gradients on them.

"The Union Workhouse is within the Urban Area, and there is a good public market in the town.

"The gross rateable value of the District is £38,917 10s. 9d., and the net value £33,581 18s. 3d., whilst the outstanding loans for sanitary purposes amount to £23,951 13s. 8d.

"The duties of Sanitary Inspector are performed by the Surveyor."

Statistics.

The natural increase of population during the year was 75. The population is estimated for the middle of 1903 at 7,200.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	13·7	·55	·0	1·6	·27	1·8	1·1	1·4	139	24·8
Averages for years 1894-1902	17·1	..	..	..	..	..	..	..	115	26·5

The birth-rate was exceptionally low.

The zymotic death-rate was due to 1 death from measles, 1 from diphtheria, and 2 from diarrhoea.

The infantile mortality included 2 deaths from diarrhoea, 1 from tuberculosis, 6 from pneumonia, 6 from premature birth, and 6 from errors of diet and management. The latter deaths and those from diarrhoea and tuberculosis, 9 in all, should be regarded as preventable.

An unsatisfactory feature is the high death-rate from phthisis. Dr. Whitaker is of opinion that education is the most fruitful field in the crusade against phthisis.

Infectious Disease.—13 cases of smallpox, 5 of diphtheria, 12 of scarlet fever, and 5 of erysipelas were notified.

Small-pox broke out on two separate occasions. The origin of the first outbreak was obscure. It consisted of three cases and was preceded by a death from what was believed to be hæmorrhagic measles. At this time there was no hospital accommodation, but fortunately the house was well isolated. There was no further spread. The second outbreak, consisting of ten cases, was due to an overlooked case. It was dealt with by removal of the cases to the hospital, which had now been built, and by other measures.

The hospital is for 8 beds and is constructed of wood and iron.

A steam disinfecter has been provided.

The district has been free from typhoid fever for the last two years.

House Accommodation.—There are a considerable number of small dwellings which are in an undesirable condition and are well-nigh unfit for habitation. “ . . . but the time has come when some definite effort should be made towards the reduction of slum property and the provision of modest but suitable dwellings for those earning small wages.” The advantages afforded by the Housing of the Working Classes Act, 1903, are pointed out.

Drainage and Sewerage.—Dr. Whitaker would like to see all new drains subjected to the water test, and more privy middens abolished.

Water Supply.—"I still regard increased and improved storage as necessary for your present needs and wish to see some adequate method of filtration provided."

Factories and Workshops.—Inspection is now on a more satisfactory footing. There are 72 workshops, including 9 bakehouses, on the register. On the whole they are reported as satisfactory.

Cowsheds and Dairies have been inspected. The chief defect is lack of cleanliness.

Nuisances are dealt with more satisfactorily. In the Nuisance Inspector's Report is pointed out the desirability, even from a monetary point of view, of converting the privies to water-closets.

The total amount of water passed through the Wrekin and Steeraway meters is:—

Wrekin Reservoir	...	...	54,190,000.
Steeraway Reservoir	...	...	8,364,000

62,554,400

Of this water 6,500,000 was sold for trade purposes.

WELLINGTON (Rural).

Medical Officer of Health ... W. T. HAWTHORN, M.R.C.S.

<i>Area in acres</i>	...	...	...	...	...	...	33,791
<i>Population</i>	<i>at 1901 Census...</i>			...	...	...	11,773
<i>Number of inhabited houses</i>	„	...	...	...	...	...	2,499
<i>Number of persons per house</i>	„	...	...	...	...	...	4.7

By an Order of the County Council coming into operation on the 25th of March, 1903, the Wellington Urban District was extended so as to include portions of the parishes of Wellington Rural, Wrockwardine and Hadley. The area of this District has been reduced by 521 acres and the population by about 200.

Statistics.

The natural increase of the population during the year was 170.

[illegible]

The zymotic death-rate was due to 1 death from diphtheria and 5 from diarrhœa.

Infectious Disease.—Five cases of small-pox, 14 of diphtheria, 4 of erysipelas, 5 of scarlet fever, 3 of enteric fever, and 9 of measles were notified. One school only was closed, on account of an epidemic of mumps. A case of small-pox, imported from Staffordshire, was removed to the Wellington Urban Hospital, and by a thorough house-to-house vaccination and other measures the spread of the disease beyond the household was prevented.

Sewerage and Drainage.—Dr. Hawthorn calls attention to the continuance of the nuisance from the sewage of the Wellington Urban District. He also regrets that the scheme for draining Hadley has not been carried out. Some much needed drainage at Rodington Heath has been accomplished.

Water Supply.—"On the passing of the Combined Water Bill for this and neighbouring districts depends a good supply of water to Hadley and the upper parts of Ketley and Lawley Bank."

Outside these districts the water supplies are, as before, fairly satisfactory.

Certificates have been granted for 19 new houses on the report of the sanitary inspector.

The Factories and Workshops Act has little application, there being only 21 workshops in all.

WEM (Urban).

Medical Officer of Health ... { E. T. WHITAKER, M.B., B.SC., D.P.H.
(For the first 3 months.)
JOHN DALLEWY, M.R.C.S., L.R.C.P.

<i>Area in Acres</i>	...	...	...	...	...	450
<i>Population</i>	<i>at 1901 Census...</i>			...	...	2,149
<i>Number of inhabited houses</i>	„	...	...	...	...	453
<i>Number of persons per house</i>	„	...	...	...	...	4.7

General Character of District.

“The number of houses is 463, giving an average tenency of 4.6. This includes the Grammar School and the Workhouse. The town of Wem is a well-built market town in the centre of a large agricultural district and is made up of a number of good houses, shops, cottages and public buildings, amongst the latter is a new Market Hall, which is in course of erection, and which, when completed, will be a fine building situated in High Street, and should prove of great benefit to the town. The town is well paved and lighted by gas. The Union Workhouse is situated in the District, and there are two cemeteries, only one of which is used. Drainage and water are provided.”

Statistics.

The natural increase of the population during the year was 12.

[illegible]

The zymotic death-rate was due to 1 death from diphtheria.

Infectious Disease.—Twenty-two cases of scarlet fever, 3 of diphtheria, 1 of membranous croup, and 1 of erysipelas were notified. There was a complete absence of infectious disease until September. The origin of the first case of scarlet fever was obscure. In the absence of hospital accommodation the disease spread notwithstanding other precautions. In one house with two bedrooms there were the father, mother, and 6 children. Five of the children were attacked.

House Accommodation—on the whole, very good. A few cases of overcrowding were dealt with. Four new houses were built during the year.

Drainage and Scavenage.—There is a weekly removal of house refuse. There are now 44 privies, 270 pan-closets, and 101 water-closets. Dr. Whitaker condemns the conversion of privies to pan-closets in a district where there are sewers and a water supply.

Water Supply—good—daily consumption for all purposes 16.12 gallons per head.

Sewage Disposal.—Dr. Whitaker says that no action had been taken up to the end of March to improve the sewage outfall. The sewage is turned practically untreated into the watercourse.

Factories and Workshops.—There are 48 workshops, including 6 bakehouses, on the register. They have all been inspected and found, on the whole, fairly satisfactory.

WEM (Rural)

Medical Officer of Health ... JOHN DALLEWY, L.R.C.P., M.R.C.S.

<i>Area in acres</i>	...	...	...	...	...	...	...	52,001
<i>Population</i>	<i>at 1901 Census...</i>						...	8,266
<i>Number of inhabited houses</i>	„	...	...	...	...	...	...	1,340
<i>Number of persons per house</i>	„	...	...	...	...	...	..	4.5

General Character of the District.

“The District is an agricultural one. The following are its chief physical features and general characters:—Wem Rural—Soil, various; sub-soil, clay, sand and gravel. Broughton—Soil is mostly heavy; sub-soil, stone and rock. Clive—Soil is mostly sandy loam; sub-soil, marl or red sandstone. Grinshill—Soil, various; sub-soil, stone, of which there are large quarries. Lee Brockhurst—Soil, mixed; sub-soil, gravel and clay. Loppington—Soil is loam, with a gravel sub-soil. Moreton Corbet—Soil chiefly sandy loam; sub-soil, sand and marl. Prees—Soil composed of bluish clays and shales, with some thin beds of limestone. Beneath the lime is red marl and sandstone, which form all the surrounding country. Shawbury—Soil, mixed; sub-soil, sand and marl. Stanton-on-Hine-Heath—Soil, sandy loam; sub-soil, sandstone and marl. Wixhill and Weston—Soil, sandy loam; subsoil, red sandstone. Whixall—Soil, mixed; sub-soil, sand and clay.”

Statistics.

The natural increase of the population during the year was 101.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	15.2	.36	.60	.60	.24	1.9	1.9	.48	97	26.2
Averages for years 1893-1902	13	..	..	.	..	..	..	..	85	25

The zymotic death-rate was due to 1 death from diphtheria and 2 from diarrhœa.

Dr. Dallewy says that the causes of death of infants show a good deal of ignorance as to their proper management.

Infectious Disease.—65 cases of scarlet fever, 3 of diphtheria, 2 of erysipelas, and 1 of puerperal fever were notified. The cases were very mild and this fact accounted for much of the spread. Whixall Council School and Edstaston School were closed on account of scarlet fever; Moreton Corbet School for measles and High Hatton for mumps.

Hospital Accommodation.—A hospital for small-pox has been built on Prees Heath for a number of districts.

Disinfection.—Instructions are given and disinfectants are supplied where necessary, but the carrying of them out is left to the occupier.

House Accommodation.—A house-to-house inspection is recommended. There is no supervision over the erection of new houses.

Water Supply.—Reference is made to the County Medical Officer's Report on the Water Supplies of part of this district, and the necessity for the proper construction of wells is pointed out.

Sewerage and Drainage—principally of individual houses, and, on the whole, satisfactory.

Factories and Workshops Act.—There are 37 workshops and workplaces on the register, and 12 bakehouses. The Medical Officer of Health has inspected them and found them, on the whole, satisfactory.

The slaughter-houses have been inspected and found satisfactory. A register of dairies and cowsheds is being made.

WENLOCK (Urban).

<i>Medical Officer of Health</i>				... M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in Acres</i>	...	...	...	...	...	...	22,657
<i>Population</i>	<i>at 1901 Census</i>...			...	...	...	15,866
<i>Number of inhabited houses</i>	„	...	...	...	...	...	3,568
<i>Number of persons per house</i>	„	...	...	...	...	...	4.4

Physical Features and General Character of the District.

“The District comprises 22,657 acres, being the largest Borough in Area in the Country. This area is of very irregular outline, but is, roughly, some ten miles long in greatest length, from North to South-West, and has a mean breadth of some four miles, being narrowest where the Severn, traversing the District from West to East, makes a natural division, the part lying to the South of the river having three or four times the area of the northern part, though with less than half the population.

“The District is for the most part a tableland lying at an elevation of from 400 to 600 feet or more; the Severn forming a deep cutting through this elevated land, its banks rising very steeply on either side from about 150 feet at the water level to the general height of about 500 feet. The Central and Eastern part, nearly half the area, lies upon the coal measures. To the West the formation is the Wenlock and Ludlow beds of Silurian age, forming a considerable part of the Southern Division, and extending also to a limited extent across the river into the Northern division. Much of this ground lies in ridges with intervening valleys at a height of from 600 to 800 feet, O.D. At the Southern extremity the Old Red Sandstone occurs. The natural drainage is to the Severn, by small streams falling as a rule steeply into the river within the District, but the Southern part of the Southern area drains to the South by small streams which meet the Severn some distance outside the District.

"The District is in large part industrial, the chief industries being coal and iron mining, iron manufactures, and brick and tile works. There is also a large china factory. These industries are confined to the Northern area together with a small part of the Southern area near the river. The greater part of the Southern area is entirely rural and agricultural, and thinly populated. For purposes of local administration the Borough is divided into four wards, each having a separate Sanitary Committee acting as the Sanitary Authority. These wards, with their area, population and general character, are as follows:—

Ward.	Area in Acres.	Population 1903	Situation.	General Character.	Death-rate per 1000, 1903.
Madeley	2841	8430	North of Severn ..	Urban and Industrial, Coal and Iron	14.1
Broseley	1991	3923	South of Severn ..	Urban and Industrial, Brick and Tile	14.5
Much Wenlock ..	8761	2235	South of Severn ..	Agricultural	17.0
Barrow	9064	1302	Both sides of Severn.	Agricultural	19.2

"The populations here given are those estimated and corrected by the proportioned distribution of the population of the Madeley Workhouse and by addition of a proportion of the inmates of the County Asylum, the deaths in these institutions being also distributed in the several wards. Not much significance should be attached to the death-rates for a single year. The figures will, however, become of value for comparison as years go by."

Statistics.

The natural increase of the population during the year was 215. The population is estimated at the middle of 1903, as 15,884, and corrected for institutions, as 15,890.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	15.0	.94	.37	1.2	.37	2.8	2.2	.94	108	27.9
Averages for years 1897-1902	17.8	1.47	..	..	..	..	..	..	111	28.1

The zymotic rate was due to 5 deaths from measles, 4 from diphtheria, 4 from diarrhoea, and 2 from whooping cough.

Infectious Disease.—One case of small-pox, 37 of scarlet fever, 18 of diphtheria, and 10 of erysipelas were notified. The *small-pox* case occurred at Broseley and its origin was obscure. It was treated at home without spread. Sixteen of the scarlet fever cases were in Madeley Ward and 18 in Much Wenlock Ward. They were mostly scattered and rarely 2 cases in a house. It was necessary to close Bourton School twice. Fourteen of the cases of *diphtheria* occurred in Madeley Ward, 6 cases occurring in one house. The complete absence of typhoid fever is attributed to some extent to the schemes of water supply. Measles was prevalent in September in Broseley and Madeley Wards.

School Closure.—Ten schools were closed on account of infectious disease. Dr. Gepp points out that some of these were closed early with the object of preventing disease, and others at a late stage because it was found unprofitable to carry on the school. The latter is not really within the duty of the Medical Officer of Health. He advocates medical inspection of schools as likely to be of great benefit both to the children and to the school.

Hospital Isolation.—A wood and iron hospital, having two wards for 4 beds each and administrative accommodation, has been erected at a total cost of £738. It is drained, fenced, and supplied with water from the Broseley main.

There is no general isolation hospital.

Disinfection of rooms is now done by the sanitary inspector, who is provided with a portable sprayer. Assistance will be required in time of epidemics.

House Accommodation—apparently adequate in amount. The census figures show that there are 150 houses with 4 or more persons per bedroom. These require investigating and should be considered in the house-to-house survey. Many of the houses are old and defective. In the absence of fresh building, the only course is to maintain them in as good condition as possible. The space about houses is generally sufficient, although there is some overcrowding at Iron-Bridge. Much remains to be done with regard to cleanliness of surroundings, although the systematic inspection and the systematic scavenging at Madeley have already had good results.

Sewerage and Drainage.—House drains are old, probably unsound, and often untrapped. Their improvement should be steadily pushed forward. The sewers are mostly old and imperfect, being often culverted watercourses. They empty directly or indirectly into the Severn. With an abundant water supply good sewerage will become more necessary. Drainage regulations have been adopted.

Excrement Disposal—mostly by privies; often old and defective; scavenged, except in Madeley, by the occupiers or owners. Thirteen conversions of objectionably "drained privies" to water-closets have been carried out during the year.

Removal and Disposal of House Refuse.—The public scavenging in the Madeley Ward has resulted in many accumulations being removed and great improvement in the receptacles. In the other wards refuse is removed by the occupier or owner.

Water Supply—Madeley and Broseley.—During the year the supply was laid on to 60 houses in Madeley and 75 in Broseley. Samples of water from private wells in these wards have been analysed and all condemned. The hardness of Harrington water is 17°, 14.5° being temporary. Much Wenlock is supplied from a deep well in the shale measures of the Wenlock Limestone. Good progress has been made in connecting houses with the mains. The hardness of this water is 25°, mostly temporary. Bourton is supplied from a spring by a ram.

Common Lodging-houses—a uniform set of by-laws is recommended. No register is kept of slaughter-houses, nor are by-laws in force.

Cowsheds, Dairies, and Milkshops.—No register is kept nor are any by-laws in force—all places needing it should be registered and by-laws should be adopted.

Factories and Workshops Act, 1901.—There are 96 workshops and 26 bakehouses on the register—reported as satisfactory and generally improving. One out of three underground bakehouses has been certified. The sanitary inspector reports marked improvement in the health of the bakers employed now in a new bakehouse in place of an underground one.

WHITCHURCH (Urban.)

Medical Officer of Health

...

M. GEPP, L.R.C.P.E., D.P.H.

<i>Area in Acres</i>	...	...	...	...	...	...	4,784
<i>Population</i>	<i>at 1901 Census...</i>						5,221
<i>Number of inhabited houses</i>	„	...	...	...	...	...	1,129
<i>Number of persons per house</i>	„	...	...	...	...	...	4.6

General Character of District.

“The District comprises 4,496 acres, lying at an elevation of from some 270 to some 350 feet above sea-level, and upon the eastern extremity of the Dee watershed. The sub-soil is the red marl of the New Red Sandstone. The fall of the ground is from south and east to west and north-west, and the natural drainage is by small tributary brooks of the Dee, leaving the District towards the north-west. The town occupies roughly the centre and higher part of the District, and is compact and old, with extensions of more recent building along some of the main roads radiating from the town. The surrounding parts of the District are entirely rural and agricultural, and extend to a distance of between two and three miles north-east and south-west of the town, but to not more than about a mile to north-west and south-east. The town is a market and residential town, and the land around is extensively used for grazing and dairy-farming.”

Statistics.

The natural increase of the population during the year was 61. The population is estimated, at the middle of 1903, as 5,274, and corrected for institutions, as 5,220.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	11.3	1.3	.19	.38	.0	1.1	1.5	1.3	112	23.9
Averages for years 1897-1902	15.5	..	..	..	..	..	..	..	102	26.3

The zymotic death-rate was due to 4 deaths from measles, 2 from scarlet fever, and 1 from diarrhoea. The death-rate from phthisis has been low for the last two years.

Infectious Disease.—One case of small-pox, 97 of scarlet fever, 5 of diphtheria, and 5 of erysipelas were notified. *Scarlet Fever* has been prevalent for three years in succession, the epidemic reaching its height in July, August and September, 1903. The fatality has been small. In 177 cases there were 4 deaths, or a rate of $2\frac{1}{4}$ per cent. There was not much reason to suspect schools as a source of infection. Precautions were taken, proceedings for exposure were taken in one instance and the schools were closed in October. *Small-pox.*—One case was imported and was isolated at the workhouse. Although he had stayed at two lodging-houses no case arose. These houses were closed for a fortnight and the bedding destroyed. The inmates of the workhouse were re-vaccinated, but those of the lodging-house refused absolutely.

Hospital Isolation.—A joint small-pox hospital board has been formed and a wood and iron hospital for 8 beds erected. The site, 11½ acres on Prees Higher Heath, was bought for £425. A caretaker's house of brick is being erected, good water has been provided and the site fenced. There is no hospital for other infectious diseases.

Disinfection.—A spraying apparatus has been provided and the spraying is done by the inspector or his assistant.

Infectious Disease (Prevention) Act, 1890, is in force except secs. 5, 6, 15, and 17.

House Accommodation—adequate in amount. There are a considerable number of old and defective dwellings incapable of being made satisfactory. Many new houses have been built during the last few years.

As a rule there is adequate air space, but there are some confined houses without through ventilation.

There is still much to be done as regards *cleanliness of surroundings*. The sanitary inspector, who is also surveyor and engineer to the council, is carrying out a house-to-house inspection as he finds time. The appointment of a qualified assistant is recommended.

Supervision of New Houses.—37 plans were passed for new houses under the bye-laws.

Sewerage and Drainage.—The town is well sewered. The houses are, as a rule, adequately drained, although there are instances of imperfect drainage. To what extent there is disconnection of house drains from the sewers is doubtful, and it is recommended that intercepting traps with ventilating inlets be placed wherever they are found not to exist. Seven premises have been re-drained in accordance with the regulations. The council has provided a smoke-testing machine. Some improvements have been made at the sewage farm.

Excrement Disposal.—A good many old privies exist in such a state as to be a nuisance. It is recommended that in these cases action be taken under sec. 36 of the Public Health Act, 1875.

Removal and Disposal of House Refuse—as a rule by occupiers. The council has arranged for scavenging under contract upon request of the householder, who is charged for it.

Water Supply—public supply. The works are at Fenns Bank, about 3 miles south-west of the town. The main works are from shallow wells sunk into the drift in the grass-land of a limited valley at Fenns Bank. An additional supply has been provided by sinking a boring 60 feet through 21 feet of clay into sand. The water from this well is syphoned to the pumping station. At present it is not used. Dr. Gepp is not quite satisfied with the analysis of the water and he recommends that it be regularly and freely drawn on and analysed again before it is used. A drain from a small farmhouse that ran close to the well has been diverted. The water from the old well has a marked brownish tint and has 19° of hardness, softened before use to 6.9°. Forty-five new and 6 old houses have been connected during the year. Numerous improvements have been made to the waterworks.

Slaughter-houses (7), common lodging-houses (3), and cowsheds, dairies, and workshops (17), are inspected regularly and are, on the whole, in a satisfactory condition.

The Public Health Acts (Amendment) Act, Part III., has been adopted in this district.

Factories and Workshops Act, 1901.—There are 73 workshops, including 11 bakehouses—all reported as satisfactory.

WHITCHURCH (Rural.)

Medical Officer of Health ...

M. GEPP, L.R.C.P.E., D.P.H.

Area in Acres	...	...	...	...	...	...	11,701
Population	at 1901 Census...	...	...	...	...	...	1,924
Number of inhabited houses	,,	...	...	...	...	...	424
Number of persons per house	,,	...	...	...	...	...	4.5

Physical Features and General Character of the District.

"The District comprises 11,989 acres of agricultural land lying on the northern border of the County. The general elevation is from 300 to 400 feet, O.D., the contour being slightly undulating. The subsoil is the red marl of the New Red Sandstone, with the exception of a small area in the South-Eastern part, where an outlier of the Lias occurs at Ightfield. The natural drainage is by small streams to North and South, the water partings between the Weaver, Dee and Severn systems crossing the District. The District is entirely rural in character and the population scattered, the small villages of Tilstock, Ash, and Ightfield comprising the main collections of houses. The land is mainly employed for grazing and dairy-farming."

Statistics.

The natural increase of the population during the year was 26. The population, in the middle of 1903, is estimated at 1,912, and after correction for public institutions, at 1,930.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1903	9.8	.52	.0	.0	.0	1.04	1.55	1.55	23	22.3
Average 1895 to 1902	13.1	..	..	..	..	..	..	..	88	26.5

Fifty-two per cent of the deaths were of persons aged 65 or upwards.

The zymotic death-rate was due to one death from scarlet fever, and the infantile death-rate to the death of one infant prematurely born.

Infectious Disease.—Twelve cases of scarlet fever and one of erysipelas were notified. The cases of scarlet fever occurred in three small outbreaks, the infection having apparently been contracted in the town of Whitchurch in each case.

Ash and Broughall schools were closed on account of whooping cough.

Hospital Accommodation.—Provision has been made for small-pox, but there is no hospital for other infectious diseases.

Disinfection.—A spraying apparatus has been provided.

House Accommodation—generally adequate in amount. None have come under the notice of the Medical Officer of Health that have called for closure. From figures previously quoted there appear to be some cases of undesirable overcrowding. Proceedings are being taken in one case.

There is adequate space about the houses and for the most part they are clean. Repeated house-to-house inspection is recommended. Such an inspection was completed 3 years ago.

Sewerage and Drainage—few, if any, public sewers. Individual houses are usually drained without nuisance.

Excrement Disposal.—The general system is privies with underground vaults, scavenged by the occupier at infrequent intervals.

Water Supply—by pumps and shallow wells, usually badly constructed and badly situated.

Broughall and Tilstock have wells sunk in safe positions and pumps conveniently placed. The Tilstock water is still tarry.

Ash Magna.—Dr. Gepp urges that this village should be supplied by sinking or boring or from the Ash Parva well, and that the water should be raised by a wind engine and small water tower and laid on to the village.

Bye-laws are in force with respect to cleansing of footways, privies, ashpits, etc., common lodging-houses, nuisances, new streets and buildings.

Dairies and Cowsheds are looked after by the sanitary inspector in accordance with the model regulations.

Factories and Workshops Act.—Ten workshops on the register—reported to be in good condition; and one bakehouse—insufficiently lighted.